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ABSTRACT

Issues concerning higher education in the United States are considered, with attention to historical developments; functions and objectives; types of institutions and degrees; internal and external organization; finance; admissions, access, and financial assistance; student and faculty characteristics; distance and recurrent education; international education; and future prospects. It is noted that the U.S. system of higher education engages in three main functions: teaching, research, and public service. Differences among research universities, doctoral-granting universities, and liberal arts colleges are identified, based on the Carnegie Classification of Institutions of Higher Education. Topics discussed include the following: the dynamics of the internal governance of colleges, including the formal and functional authority relationships; the context within which the internal governance sturcture is embedded; the external control of institutions by individual boards of control and statewide coordinating agencies and governing boards; the role of the Federal Government in higher education; financial support by state governments of public higher education; federal financial aid for students, research, and facilities construction; and open, selective, and competitive admissions. Appendices include a list of U.S. higher education associations and data on: enrollments, degrees, school funds, student financial aid, student goals, and student majors. (SW)

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Higher Education in the United States

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HIGHER EDUCATION IN THE UNITED STATES

by DONALD S. DOUCETTE

CEPES
Bucharest 1982

PREFACE

The present volume on higher education in the USA is the third in CEPES' series of monographs on systems of higher education, the previous ones dealing with higher education in Romania and Switzerland respectively.

We are proud to present the USA monograph in this relatively short form as it will allow the readers to grasp the complexity of a higher education system which has proven to be both unique and influential.

The European Centre for Higher Education (CEPES) is much indebted to the US Department of Education which identified a scholar who agreed to undertake the pertaining task, respecting a limited number of pages and a list of items to be discussed so as to maintain a certain comparability with past and future monographs of this kind. CEPES is therefore most grateful to Dr. Donald S. Doucette formerly of the Arizona State University for having accepted the request of the Department of Education and produced this authoritative document, which does not necessarily reflect the position of the US Department of Education.

In order to comply with the consistent outline of other monographs, it was necessary to adjust the text slightly, and streamline the numerous annexes. Given the considerable complexity of US higher education, which could have justified a lengthy and detailed analysis, readers will appreciate the comprehensive description as given by Dr. Doucette, underlining important details, but always referring to the overall general aspects. This achievement is matched by a wise choice of significant statistics and graphs providing further in-depth information and better visual understanding of sociological and organizational topics. The monograph also includes a short, selective bibliography and a list of nationally important higher education associations.

For reasons of space it was not possible to include neither a full list of higher education institutions (there are more than 3000), nor a series of typical study plans as there is much variety in this respect.

We sincerely hope that this publication will fill a need and be of interest to those who want to be informed on the interesting, basic issues pertaining to higher education in the USA.

A. ØFJORD
DIRECTOR OF CEPES

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Several people were involved in the writing and production of this manuscript. I would like to acknowledge their individual contributions.

Richard C. Richardson, Jr., professor and chair of the Department of Higher and Adult Education, Arizona State University, was instrumental in the planning and organizing of the monograph itself. He provided invaluable insight into the complexity of the subject gleaned from his years of experience in the field of higher education and also helped limit the size of the manuscript by his perceptive and deft editing.

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J. Eugene Welden, Acting Chief of the International Organizations Section, Office of Postsecondary Education, U.S. Department of Education not only contributed valuable editorial assistance but also wrote Chapter 9, "Distance and Recurrent Education". I would like to acknowledge this special contribution toward the completion of the manuscript.

Others, too, were an enormous help in the production of the manuscript, particularly Dorla Nelson and Ramona Acuna who typed and proofread the final copy of the text. I would like to thank them all for their assistance in the difficult project of attempting to capture the complexity of higher education in the United States in so few pages.

DONALD S. DOUCETTE

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INTRODUCTION

A variety of organizational, curricular and philosophical features of the system of higher education in the United States distinguish it from other systems in the world, but the system's size, egalitarianism, diversity and comprehensiveness are the most notable and significant of these distinguishing features. The most conspicuous distinctive feature of the system is its size. In the academic year 1978—79, nearly $11^1/_2$ million men and women were enrolled in over 3,100 institutions that employed 450,000 full-time faculty and another one-quarter million part-time instructional staff. These $11^1/_2$ million students include approximately 32% of the 18—21 year-old cohort. These numbers are not a passing phenomenon. Both the growth in numbers and in participation rates in higher education in the United States have been continuous since at least the turn of the century, and while full-time enrollments have been leveling off and are expected to decline in the 1980's due to a decrease in the 18—21 year-old cohort nationwide, overall enrollments can be expected to increase and remain in the 12—13 million range due in part to offsetting increases in part-time, older and non-traditional students.

Perhaps a more interesting distinguishing feature of the system of higher education in the U.S. is its egalitarianism. Virtually every applicant for higher education in the U.S. finds a place in a college or university, and since the implementation of need-based financial assistance programs by the federal government in 1972, virtually every applicant has access to the financial means necessary to attend any institution for which the applicant is academically qualified. Participation rates for lower income, minority and women students have increased more rapidly in the last decade than for any other socioeconomic group. Women have, in fact, reached complete parity in participation in higher education. A movement toward standardization of the degree system and a high degree of integration among the various levels of the system will effectively assure that there are no blind alleys in the system. Students can easily transfer from one curriculum to another, from one institution to another, and from one level to another as suits their needs and developing inter-

ests. Students are effectively limited only by the level of their abilities and aspirations.

The system of higher education in the United States is also conspicuously diverse and decentralized. This is primarily the result of not only the fact that the nation's founding document, the United States' Constitution, specifically charges the individual states with the responsibility of educating its citizens, but also a long tradition of institutional autonomy. Because the states, not the federal government, organize and fund all levels of education, including higher education, the "system" of higher education in the U.S. is really fifty individual systems, each with its own peculiarities, that contain a wide diversity of individual institutions, each with its own purposes, emphases and clientele.

A result of this decentralized diversity is a comprehensiveness and breadth of education programs in higher education unlike any in the world. The system provides low-level technical training as well as advanced study in sophisticated pure and applied scientific research. It provides general education in the arts and the humanities as well as professional studies and preparation for both the established professions, law and medicine, and the new professions, education, business, engineering and the health sciences. New programs are developed continuously to meet emerging societal needs, such as those in energy and the environment, as well as to meet the needs and interests of new clientele : the elderly, middle-age women attempting to reenter the job market, and the educationally disadvantaged seeking basic skill development. The term "postsecondary education" is replacing "higher education" in common usage and in federal legislation, and this change has come to represent the expanding domain of the system, especially in its developing commitment to "lifelong learning" for all of the citizens of the nation.

This survey of the system of higher education in the United States describes both the diversity and the standardization that coexist in the system. It generalizes cautiously where standardization is both apparent and predominant. However, when treating those aspects of the system where generalizations would be misleading, the survey examines representative state systems for what they can reveal about the dynamics of diversity within the system. From both of these perspectives emerges a composite of the system of higher education in the United States.

CHAPTER 1

HISTORICAL DEVELOPMENT

The historical development of higher education in the United States preceded the establishment of the nation by nearly 150 years. Harvard College was founded in 1636 under a charter granted to a private group of citizens who defined the purpose of their college to be the training of young men for the clergy and the development of the leadership of the theocratic colony. This board of overseers shielded the college from both royal and legislative interference and preserved the institution's autonomy; yet it successfully dictated its academic policies, which in turn came to reflect the prevailing mores of the strictly religious community. Admission to Harvard was essentially limited to the elite, and to a few "pious" boys who received scholarships. The curriculum was totally prescribed and descendent from the classical Greek model, and the college viewed its responsibilities to include the formation of the students' moral characters, not just their intellects. Harvard established the model after which the colleges of colonial higher education were patterned for nearly 200 years — the small, private, elite and religiously-dominated institution of classical learning and moral development.

Not until the fusion of Thomas Jefferson's democratic idealism and a national revolutionary spirit resulted in the founding of the University of Virginia in 1824 was there an alternative to the Harvard model. The University of Virginia was the first publicly supported institution of higher education in the emerging nation. It differed sharply from other institutions in that it received its charter from the state legislature, was explicitly nonsectarian, admitted students on the basis of intellectual aptitude rather than social position and offered a choice of several curricula other than the classical liberal arts regimen. The institution represented Jefferson's vision of the developing educational and social needs of the emerging nation, and the model offered by the University of Virginia competed with the traditional Harvard model until the mid-century Civil War.

The demands of the United States westward expansion and the rise of industrialism prompted the federal government to become substantially involved in higher education for the first time in 1862. By passing the Morrill Land Grant Act of 1862, which granted land and the revenues produced by such lands to states to establish institutions of higher education that offered training in agriculture and the mechanical arts, the Congress and President Lincoln explicitly recognized that a system of higher education that did not overlook the practical and applied arts and sciences was essential to serve the needs of a growing industrial society. The act succeeded in establishing a dual organization of public and private control in higher education, and it began to broaden significantly the opportunity for participation in higher education. Cornell University, "the jewel of the land grant movement", was founded in 1868 on the revolutionary motto "...an institution where any person can find instruction in any study". The act also succeeded in legitimizing the responsibility of higher education to be responsive to the needs of society. Specialized institutions sprang up to meet various expressed needs, and Johns Hopkins was founded in 1876 as the nation's first graduate school to meet the need for specialized knowledge and research.

The tone and direction of higher education in the United States was set by this initial piece of federal legislation, and parallel systems of privately and publicly controlled institutions flourished into this century. A major turning point that has shaped the tremendous expansion of higher education in the last three decades was another piece of federal legislation, the Veteran's Rehabilitation Act of 1945. Known as the "G.I. Bill of Rights", this act provided federal subsidies for the higher education of returning soldiers. Enrollments spiraled with this new influx of students and again in the 1960's with the children of these veterans. This growth took place largely in public institutions, and public institutions' enrollments matched private institutions' enorllments for the first time in 1950. Public institutions now account for 80% of the total enrollment in higher education, though they account for only 52% of the institutions.

Also immediately following World War II, President Truman's Advisory Commission on Higher Education made several recommendations concerning the emphasis and direction of higher education that ushered in the current modern era in undergraduate education. The commission recommended an end to all curricular, economic, religious and racial barriers to higher education. It also recommended that mass access to higher education be a principal objective of the system, and it called for the expansion and further development of two-year community colleges to assist that end. Both of these recommendations were based upon the still controversial assumption that as many as 60% of all high school graduates in the United States could benefit from at least two years of further study. Public community colleges now account for 45% of total public enrollments in higher education and approximately 35% of total enrollments in all of higher education.

Other federal initiatives, most notably the National Defense Education Act of 1958 and the Higher Education Act of 1965, continued the movement toward mass access by removing financial barriers to access to higher education by providing merit-based student financial assistance in the form of loans and grants. However, the Amendments of 1972 of the latter act effectively brought the goal of mass access to fruition by providing need-based financial assistance to virtually any student who could qualify academically for any institution. By doing so, the 1972 amendments ushered in the final stage of the development of higher education in the United States. Higher education was essentially elite until the end of the Second World War. It was meritocratic from then until the passage of the Amendments of 1972 to the Higher Education Act of 1965. Today, higher education is mass education where access is viewed as a right, not a privilege or a matter of good fortune.

CHAPTER 2

FUNCTIONS AND OBJECTIVES

The system of higher education in the United States engages in three principal functions: teaching, research and public service. However, because the system is diverse and comprised of a variety of quite different institutions, the relative emphasis given each function varies according to the particular mission articulated by each institution. In fact, institutions tend to be categorized largely on the basis of their relative emphasis on these three functions. Major universities tend to emphasize research, and major state universities are likely also to be extensively involved in public service. Community colleges tend to be viewed as almost exclusively teaching institutions, possibly with a public service component. State colleges, liberal arts colleges and specialized institutions lie somewhere in between these two extremes. Yet the teaching, research and public service functions are the unifying force of the system; most institutions are engaged in all three to some degree.

Teaching as a function of higher education is not limited to the transmission of knowledge and the influencing of a student's cognitive faculties. Rather teaching is concerned with both the curricular and extracurricular influences on students. The historical tradition of higher education embraces both the transmission of knowledge and the development of students' personalities, their moral, cultural and social characters, and their preparation for practical affairs. Again, the relative emphasis accorded each aspect of teaching is a function of the type of institution. Small church-related colleges might emphasize moral development, while professional and technical schools prepare specifically for entry into a profession and the development of specific competencies.

The research function might be broadly defined as the search for new knowledge. Research here includes all of the scholarly, scientific, philosophical, creative and critical activities of colleges and universities; its purpose is to generate, interpret and apply new knowledge and to cultivate the advancement of the arts and sciences for a variety of clientele. The clientele of such research is not limited to the federal govern-

ment, nor to students and faculty, but research also serves the business community, labor unions, farmers, practicing professions and the general public. While the federal government substantially subsidizes contract research in applied projects at major "research" universities, a community college instructor who publishes his success with an innovative teaching technique is also involved in the research function.

Public service as a function of higher education in the United States is the most recent addition to the tripartite function, dating back to the "Wisconsin Idea" of 1904. This idea, pioneered by the University of Wisconsin, was that the state university should serve the state, that is, provide educational extension services to clientele throughout the state, **including not only instruction,** support services and applied research projects, but also health care and legal clinics, counseling, consulting, artistic performance and even spectator sports. While the publicly supported sectors of higher education, the state colleges and unviersities and the community colleges, are most committed to serving the public whose tax dollars support them most directly, private colleges and universities are also deeply involved in extending their resources and capabilities to external constituencies.

An important feature of higher education in the U.S. is that all three of these functions are carried on simultaneously. An individual faculty member's responsibilities might typically include teaching several classes each week, both on campus and off, advising undergraduates on academic direction or personal problems, guiding graduate students' research and dissertations, serving on a faculty committee concerned with admissions standards, critically reviewing scholarly articles for publication, consulting on a state government project, generating research in his or her speciality, and serving as a spokesman for a citizen's group of some kind.

Criticisms have been made that such diverse demands made upon faculty members must invariably lead to an emphasis on one of the functions to the neglect of the others. In fact, the criticism is probably valid to the extent that faculty invariably emphasize those functions for which they are rewarded and promoted, which is largely dependent on the type of institution. However, it is equally clear that the three functions can be and often are mutually supportive. Teaching may be enhanced if it occurs in an environment that fosters the generation of new knowledge and ideas. Similarly, public service might enrich research by focussing it and placing it in the context of real-world problems. Teaching is essential in keeping faculty in touch with the aspirations and sensibilities of new generations of citizens. The tripartite function and responsibility thus add coherence and unity to the system of higher education in the United States.

The general acceptance of the teaching, research and public service functions by the higher education community and society as a whole does not, however, preclude other external constituencies from influencing the colleges and universities to perform still other functions. Principal among these constituencies is the federal government. Aside from support-

ing the research efforts of the institutions in areas of national interest and work-force training of skilled workers and professionals in needed fields, the federal government has provided a substantial subsidy to higher education in pursuit of a recognized and long-held American ideal and national objective — providing equality of opportunity for all Americans. Education has traditionally been seen as a means of minimizing social and economic differences. To this end, the federal government provided higher education with over $ 8 billion in 1978—79 in the form of need-based financial assistance to students. The design of the federal assistance programs is intended to promote student equality of access and choice to all institutions of higher education, and there is substantial evidence that these goals are being accomplished.

Yet, as Howard Bowen (1978) points out, equality of opportunity is quite different from equality of condition. He notes that substantial increases in participation rates for lower-income, minority and other disadvantaged groups has had little effect on the distribution of income and social class position in the United States. Some critics even argue that mass higher education causes greater inequality of condition because socioeconomically advantaged students continue to participate at higher rates in higher education and are in a better position to benefit from it. Bowen suggests that mass higher education is more likely to promote greater equality of condition by decreasing the economic value of a college degree and by simultaneously increasing the value of blue-collar work, though educators have optimistically hoped that mass education would "level up" the less privileged rather than "level down" the more privileged. The role of higher education in promoting the social goal of equality of condition remains quite controversial.

Even more controversial are those who would impose upon the colleges and universities the function of societal change-agent. To the extent that higher education changes the attitudes, values and behavior of students, higher education clearly changes society. Yet the direction in which change might be effected is clearly an explosive philosophical and political issue. Some have argued that a "liberal view" is imparted by higher education, but the resurgence of conservative political values in the United States in the late 1970's casts doubt on this assertion. Others have argued that higher education should assume the necessary role of social critic for the society at large, and individual faculty have a long tradition of commenting on the social issues of their times. Faculty have not felt constrained to remain neutral in discussion of social issues, but have often taken the lead in advocacy of positions that have been supported by their own scholarly research. Today faculty are in the forefront of the discussion of environmental protection, social justice, penal reform, economic policy and even consumer protection.

Because of its size, resources and potential impact, higher education in the United States cannot escape involvement in the greater social issues of the day. Its involvement is nonetheless directed by its performance of its teaching, research and public service functions.

CHAPTER 3

TYPES OF INSTITUTIONS AND DEGREES

The extent to which it is posible to generalize about institutions of higher education in the U.S. is determined by the extent to which a classification or typology of institutions accurately captures institutional similarities amid considerable diversity. Such a classification is also necessary to make interinstitutional comparisons reasonably valid. There are different classification schemes for the institutions of higher education in the United States; some are based upon such characteristics as selectivity, type of control (public versus private), curricular emphasis and functional emphasis. One such classification of institutions is the Higher Education Government Information System which is commonly used for national data collection and publication of national educational statistics. Another widely referred to scheme is that proposed by the Carnegie Commission on Higher Education in 1973; it places primary emphasis on the functions performed by institutions, while considering other of the mentioned criteria.

The following is an outline of the revised Carnegie Classification of Institutions of Higher Education (1976):

1. Doctorate-Granting Institutions
   - 1.1. Research Universities I
   - 1.2. Research Universities II
   - 1.3. Doctorate-Granting Universities I
   - 1.4. Doctorate-Granting Universities II
2. Comprehensive Universities and Colleges
   - 2.1. Comprehensive Universities and Colleges I
   - 2.2. Comprehensive Universities and Colleges II

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3. Liberal Arts Colleges

   3.1. Liberal Arts Colleges I

   3.2. Liberal Arts Colleges II

4. Two-Year Colleges and Institutes

5. Professional Schools and Other Specialized Institutions

   5.1. Theological Seminaries, Bible Colleges and other institutions offering degrees in religion

   5.2. Medical Schools and Medical Centers

   5.3. Other separate health professional schools

   5.4. Schools of Engineering and Technology

   5.5. Schools of Business and Management

   5.6. Schools of Art, Music and Design

   5.7. Schools of Law

   5.8. Teachers Colleges

   5.9. Other specialized institutions

6. Institutions for Nontraditional Study.

A brief summary of the criteria for inclusion in the categories of this classification scheme helps to idenitfy the differences among them. The **Research Universities I** category requires that a member institution be in the top 50 of institutions nationwide in amount of direct institutional federal financial support, generally for contract research, and have awarded at least 50 Ph.D's (including M.D.'s) in the preceding year. The institutions in this category are the "multiversities", the large and comprehensive all-purpose universities of national and international renown. They are generally the older and well-established private institutions with leading doctoral programs, such as Harvard, Yale and Stanford, and the major state universities, the University of Michigan and the University of California at Berkeley and at Los Angeles. Typically, only institutions with medical schools can qualify for this category because of the high level of federal support for medical research. To be included in the **Research Universities II** category, an institution must be in the top 100 recipients of direct federal financial support and have awarded 50 or more Ph.D.'s or M.D.'s in the previous year, or it must have been in the top 60 of institutions in awarding doctorates in the previous year.

Doctoral-Granting Universities I requires a minimum of 40 Ph.D.'s in at least five fields or at least $ 3 million in federal support, while **Doctoral-Granting Universities II** requires fewer Ph.D.'s and makes no provision for federal support. The **Comprehensive Universities and**

Colleges categories include those institutions that have a liberal arts program and at least one other professional or occupational program, such as engineering and business administration, and an enrollment of no less than 1,000 students. Inclusion in **level I or II** of this category depends upon number of professional programs and size enrollment. These categories include the state colleges and smaller state universities that usually offer master's degrees but offer few, if any, doctorate programs.

The category **Liberal Arts College I** adds the criterion of selectivity, requiring that institutions in this category meet a minimum rating on a selectivity scale that includes such variables as the scholastic aptitude scores of incoming students, or that these institutions were among the top 200 institutions in graduates who received Ph.D.'s at the top 40 doctoral-granting institutions over the past half-century. Institutions in this category are well-known small colleges with strong liberal arts traditions such as Swarthmore, Williams and the Claremont Colleges. Other liberal arts colleges fall into the **Liberal Arts Colleges II** category. Finally, the remaining categories are self-explanatory. A breakdown of the number of these and all other institutions in each category is contained in Appendix 1, Table 3.

The Carnegie Classification of Institutions of Higher Education groups institutions by function, generally teaching versus research; by size, enrollments and numbers of programs; by curricular emphasis and diversity, liberal arts versus professional preparation; and even by selectivity. However, what might seem a reasonably balanced scheme is viewed by some as arbitrary. A criticism of the classification is that it is easily seen as a system for ranking institutions, which is clearly inappropriate within a system of higher education that not only is diverse but depends upon that diversity for its success. The entire system operates upon the principle that institutions should play distinctive roles and offer diversified educational programs to meet the needs of both students and society as economically as possible. Such a system would not be served well by any ranking that encouraged all institutions to aspire to be a Harvard or a Berkeley. A state college or small liberal arts school is clearly just as important as the research multiversity to the success of the system.

As the preceding indicates, institutions are to some extent categorized by the kinds of degrees they offer. Research and doctoral-granting institutions offer undergraduate education leading to bachelor's degrees and graduate programs leading to master's degrees and doctorates. Comprehensive institutions offer programs leading to both the bachelor's and master's, and liberal arts colleges are generally limited to offering the undergraduate bachelor's degree. The two-year colleges offer only the associate's degree, and the professional and specialized schools offer just those degrees that are specifically required in preparation for their respective specialties. It is perhaps appropriate to include a description of the degree structure of higher education in the United States at this point.

There are three firmly established levels in the degree structure. These have already been mentioned: the bachelor's degree, the master's degree and the doctorate; each has a distinct function and a distinct program of study leading to it. Twelve years of elementary and secondary education usually precede entry into a program leading to the first degree, the bachelor's. It follows the completion of an undergraduate program, generally four years in length, that emphasizes breadth of knowledge rather than specialized expertise. The Bachelor of Arts and Bachelor of Science are the most common nonspecialized degrees. However, in a minority of cases, the bachelor's degree represents a lower-level specialized or professional degree, for instance, a Bachelor's of Architecture or a Bachelor's of Library Science.

The master's degree is the second degree, and its emphasis reverses the bachelor's degree. It follows a program of study where the emphasis is on the practical and specialized training of students for professional work such as teaching, engineering, social work or business. The professional programs leading to these degrees, the M.Ed., M.E., M.S.W. and M.B.A. respectively, usually require two years of study beyond the bachelor's with a minimum of one year. However, the master's also serves as a nonprofessional or research degree. It is conferred in some cases simply for the accumulation of a certain number of credit hours, usually around 30, beyond the bachelor's. It is sometimes awarded as somewhat of a consolation for students who have decided not to complete a program leading to a doctorate less than halfway through the program, or who have completed research that is not at the level of doctoral work.

The doctorate is the terminal degree awarded. It is highly specialized and has as its principal purpose the training of researchers for in-depth exploration of the field of specialization. The number of years required to complete the doctorate is variable, for it is awarded only after the completion of an advanced piece of independent research, the dissertation, that may take months or years, but a doctoral program probably averages three years after the completion of the master's. Those trained as researchers generally receive the Ph.D., the Doctor of Philosophy, and this degree has become the minimum requirement for most tenured appointments to a university faculty. However, there are earned doctorates that represent advanced professional degrees rather than advanced training in research. The Doctor of Education, the Doctor of Medicine and the Doctor of Jurisprudence (law) are the primary examples.

There are also other less established levels of degrees. The first is the pre-first degree, the associate's degree, which is awarded after two years of undergraduate education. The degree is either nonspecialized and seen as preliminary to a bachelor's degree or is a low-level specialized degree in such areas as business, nursing and technical trades. This degree has become increasingly common because of the increase in number of the community colleges that offer many two-year terminal degrees. There are also less established degrees conferred prior to the completion of the doctoral dissertation, and as recognition for post-

doctorate achievement, but these represent minority practices and are not well-integrated into the degree system.

There are some exceptions to the rules described above. For instance, there are five-year professional bachelor's degrees in fields such as engineering and architecture that are essentially equivalent to a professional master's degree; Table 4 in Appendix 1 outlines the degree structure and details these exceptions. There are also honorary degrees conferred upon prominent persons who have earned recognition for service and significant contributions outside of the system of higher education. There are certificates awarded for nondegree academic work and skill training to millions who participate in nondegree courses, seminars and programs offered principally by the continuing education and extension divisions of universities, by the community colleges and by business and industry. Yet the overall degree structure in higher education in the United States is stable, coherent and well-integrated at all levels within the system. Probably the greatest benefit of this integration is that it allows transfer among almost all areas and all levels, especially after the completion of one level as indicated by the conferring of a degree. There is probably an example of a student transferring from one level to another in every conceivable combination. Though documentation of this claim is obviously a difficult order, the assertion that there are practically no blind alleys in the degree structure is made with complete confidence.

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CHAPTER 4

INTERNAL ORGANIZATION

Since the beginning of higher education in the United States, institutions and their founders and defenders have sought to establish and preserve the "autonomy" of their institutions. Historically, this sensitivity to external control is easily traced directly to the fear of dissenting religious groups of interference in the affairs of their sectarian institutions. Consequently, the founding of colleges was patterned after the establishment of a corporation, and a charter was sought from the ruling governmental authority that invested control of the institution in a corporate board. Since the board of control shared the views of the faculty and chief officers of the institution, the institution was effectively autonomous. However, very early in the development of this arrangement in higher education, it became clear that the "lay" board of control, composed of leaders of the community but generally noneducators, would conflict with faculty on matters of substance concerning the conduct of the affairs of the institution.

The struggle that ensued between external boards of control and internal faculty constituencies was first settled at Harvard, and this settlement resulted in a pattern of shared authority among the various constituencies of an institution .The external lay board controlled the formation of policy concerning the overall direction of the institution and the allocation of financial resources to carry out that policy, while the internal constituencies, the faculty and its chief officers, controlled the admission, discipline and instruction of its students. The concept of shared authority has been expanded over time, and in the past decade a statement of the American Association of University Professors (AAUP) has articulated the concept of shared authority and primary responsibilities of the various constituencies of an institution of higher education. The statement details the norm for institutional governance, which although various in application and practice across types of institutions,

represents a common conception of what governance in higher education is :

> The faculty has primary responsibility for curriculum, subject matter and methods of instruction, research, faculty status, and in those aspects of student life which relate to the educational process, and in these matters the governing board and president should generally concur with the faculty judgment. The governing board is responsible for husbanding the endowment and for obtaining needed capital and operating funds, among other duties. The selection of academic deans and other chief academic officers should be the responsibility of the president with the advice of and in consultation with the appropriate faculty. (1970, AAUP, in Mortimer and McConnell, 1978, p. 6).

The remainder of the chapter will concern the specifics and the dynamics of the internal governance of institutions of higher education, including the formal and functional authority relationships that commonly exist among the president and his administrative officers, the faculty and the students. The next chapter will turn to a discussion of the context within which this internal governance structure is embedded, the external control of institutions by individual boards of control and statewide coordinating agencies and governing boards, and the role of the federal government and other influences in higher education.

The president is almost universally delegated the formal authority, and near total responsibility, over the internal functioning of the institution by the external board of control. He presides over a formal hierarchical structure that resembles a corporation or bureaucracy. The number of levels in the hierarchy is, of course, dependent upon the size of the institution, but in a typical university, the first level below the president that reports directly to him is the vice presidential level. There may be as many as five or six vice presidents, but the most common are the Vice President for Academic Affairs and the Vice President of Business Affairs. These two positions might be referred to by different names in different institutions, and they represent a basic division within the administrative structure, academic and support administration. These two vice presidential positions are often supplemented by vice presidents of student affairs, graduate studies, and planning and budgeting, but the chief academic officer, the academic vice president, is generally considered second to the president in the administrative hierarchy. The titles for administrators at this level vary considerably among institutions; they may be titled provost, or in smaller colleges, dean.

The levels below the various administrative vice presidents vary tremendously, though the Vice President for Academic Affairs typically has reporting to him the deans of the various academic colleges and divisions of the institution. The department chairs represent individual faculty members joined together by their academic disciplines in departments and report to the dean of their college. However, faculty often are also organized in interdepartmental faculty senates that operate parallel

to the hierarchical structure of an institution. Students, who are not represented in most formal hierarchical institutional structures, might also organize in a campus-wide senate, or in some cases, they are represented within a single university senate. These arrangements vary from institution to institution.

Within an institution of higher education, then, are two major constituencies, administration and academic faculty, that interact through formal channels of communication and authority. When institutions were small, this distinction was minimized since most administrative officers also served as faculty — Harvard's first president taught all the classes and performed all the administrative duties of the college. The size and type of institution continue to affect the importance of the distinction; however, in the modern era of multiversities, faculty unions and collective bargaining, the distinction between faculty and administration is an increasingly important one. In the academic area, it is usually drawn at the level department chair, who thus occupies a pivotal post in the academic administration of many institutions. The department chair is often elected by department faculty, is viewed as first among peers and generally continues to teach some classes and conduct scholarly research. Above these chairs in the academic adiministration of a university are the deans of the colleges and the academic vice president who are viewed as administration, though they are almost always drawn from the ranks of the faculty and generally have faculty positions reserved for them should they step down from administrative positions. Parallel to this academic administrative structure are the various support service hierarchies that report to the president through their respective vice presidents. These middle-level and upper-level managers serve at the pleasure of the president in nontenure track, nonacademic positions.

Despite the rather large and bureaucratic organization of a large institution's administration, the smaller departments remain the basic functional unit of institutions of higher education. The productive output of an institution, the teaching, research and public service, is initiated and performed by the factulty who are organized into departments by disciplines; even the reputations of whole institutions are largely the result of the success of individual departments. Because decisions concerning what courses are to be taught, what research is to be undertaken, what program requirements are to be made of students, and what faculty are to be hired and promoted are essentially department decisions that tend to be ratified at the upper levels of the administration, the interests and the membership of individual departments shape the character and direction of institutions.

Nonetheless, while the department is crucial in determining the nature of the academic program of many institutions, the president and his upper-level administrators have significant levers of influence available to them. Probably the administration's principal lever of influence is its control over the allocation of resources. Budgetary decisions that allocate operating funds and faculty positions are powerful tools available to the president and his administration to shape all manner of programs

within the institution. While the president does have the formal authority to command those below him in the hierarchy, such a display of power is generally avoided in most institutions for it destroys any sense of a "community of scholars" that is traditionally presumed of an institution of higher education. So, typically a president nudges and coaxes an institution and shapes the fulfillment of its mission by influencing its allocation of resources, and in rarer cases, by dynamic and charismatic leadership. Meanwhile, departments shape an institution from the bottom up. Initiative and control operate in both directions through the administrative hierarchies of institutions of higher education.

Some critics have termed this unique organizational structure "organized anarchy" (Cohen and March, 1978), for it is clear that independent-minded faculty engaged in diverse activities, aspiring to diverse goals and often protected by the virtual lifetime job security of tenure are not an easy group to manage. Institutions of higher education are simply not manageable as are for-profit institutions with generally well-defined goals. However, inasmuch as institutions of higher education are asked to perform a variety of functions for society, their shared governance structures permit the interaction of all their internal constituencies. Again, the size and complexity of an institution, more than any other single factor, will determine the relative strength of administration and faculty. Complex research institutions are generally viewed as loose groupings of independent faculty specialists coordinated by chiefs of staff; the faculty of community colleges are generally much more subject to the control and direction of central administration.

CHAPTER 5

EXTERNAL ORGANIZATION

As has already been mentioned, the individual states of the United States have the constitutional authority to administer higher education within their boundaries, and they have exercised their prerogative. While the federal government does provide support and direction to higher education nationwide, the states have nonetheless thus far maintained effective control over institutions within their boundaries and have shaped state systems of higher education with a variety of patterns of organization, control and finance. Although state patterns differ, principally due to the vagaries of historical development, there are a few principles of the external organization of state systems of higher education that are commonly practiced.

One principle that is commonly applied throughout government and is almost universally applied in the control of institutions of higher education is that the public interest is best served if control is vested in a deliberative body of citizens who are not members of the institution. Public and private institutions of higher education alike are typically governed by nonsalaried boards or commissions that are charged with representing the public interest. These boards are most commonly called board of regents or boards of trustees. Private institutions tend to have boards that are established by articles of incorporation and that are large and self-perpetuating, that is, that elect their own successors. Boards for public institutions are generally established by either constitutional or legislative mandate. They tend to be smaller, with eight to a dozen members, and are generally appointed to limited terms by the governor of the state, though two states have boards that are elected directly by the citizens of the state.

These governing boards are ultimately responsible for all of the functions of their respective institutions. However, typically their most important function is the development of broad institutional goals and policies and the selection of the chief administrative officer, usually titled president or chancellor, who is delegated the executive power to

govern the institution in accordance with overall board policies. The institutional president, then, has effective control over the functioning of the institution, which he delegates to various vice presidents and faculty, but he serves at the pleasure of the board whose confidence it is crucial for him to maintain.

Another principle of the external control of institutions of higher education that seems to operate in most state systems is the attempt to coordinate various sectors of both public and private higher education through statewide coordinating agencies. Such coordinating agencies have as their purpose the effective statewide planning, coordination and review of all institutions within the state so as to meet the needs of the citizens of the state rather than solely the interests of the institutions. The historical movement toward various kinds of centralized coordinating or even governing boards is detailed in Appendix 1, Table 5. There are several varieties of statewide patterns of coordination and governance, and it is important to distinguish between coordinating agencies and governing boards. The proper function of coordinating agencies is policy and planning, not executive decision; governing boards, on the other hand, do exercise executive governing functions. Coordinating boards might set general standards for administrative procedures, admissions criteria or academic programs and might require the reporting of student enrollment and financial data. On the other hand, governing boards actually hire and fire administrators and all other personnel, establish specific admissions policies and approve or reject proposed academic programs. To promote both coordination and governing functions, states have developed various organizational structures that differ primarily in degree of centralized control.

Halstead (1976) has identified three basic types of organizational structures which states have employed to develop these coordination and governance functions. The first basic type consists of a single governing board and a single president presiding over a multicampus institution with separate campus provosts or other chief administrative officers. This type of organizational structure is usually employed to govern a multiversity with several components or branch campuses at which unity of action toward common goals is considered essential. The president of the institution, sometimes called a chancellor, is responsible for executing the policies of the governing board for the institution as an entity. The campus chief executives are charged with the day-to-day operations of the individual campuses of the institution. The University of California system and the University of Wisconsin are prime examples of this type of organizational structure.

The second type of structure identified by Halstead consists of a single governing board and separate college presidents presiding over several separate institutions. Generally, this type of organization is employed for the purpose of providing central governance to a system of several similar institutions. The board provides general supervision to the institutions, but the individual presidents are responsible for the

execution of board policies at their own institutions and frequently have considerable influence over the formulation of board policy. This organizational structure is most commonly employed by states for systems of four-year senior colleges, such as in California, Texas and Illinois.

The third basic type of organizational structure consists of a single coordinating agency and separate governing boards and presidents for each institution. This type of organization is suitable for strong independent institutions that seek coordination with a state system yet desire local governance. This structure also meets the particular needs of most state community college systems where overall statewide coordination of effort is desirable, yet where local governance by local boards of control representing the local community is essential. This structure allows each institution to develop its own individuality, and the coordinating procedures are similar to those of a state coordinating board except that they are limited to a particular group of instituions. Schematic representations of these three types of structures are presented in Appendix 1 Table 6.

Especially in large states, various combinations of these three types of organization patterns might coexist, with different types of institutions organized in different patterns. For example, in California variations of all three of Halstead's prototype patterns exist within the state system of public higher education : the University of California is organized according to a type-one pattern with several campuses of one institution ; the California State University and Colleges are separate institutions organized along the lines of a type-two pattern ; and its community colleges are governed directly by local institutional boards as in type-three. Wisconsin has organized all of its four-year and two-year institutions under one Board of Regents of the University of Wisconsin System, a type-one pattern of organization, yet its vocational and technical institutions are organized separately under institutional governing boards. New York employs a hybrid of these organizational patterns with 36 units of the State University of New York organized under one board, 30 community colleges governed by institutional boards and 19 more units, both two-year and four-year units, under a separate board of trustees for the City University of New York System. The variations are endless, and these state organizational charts are included in Appendix 1 to provide a flavor of the complexity.

In the past decade, states have indicated a strong tendency to bring even further statewide coordination to higher education by establishing statewide agencies that coordinate the activities of the other coordinating or governing structures of various types of institutions that have just been detailed. For instance, California's Postsecondary Education Commission provides a link for the separate boards governing the university system, the state college and university system and the community college system, as well as for the Council for Private Postsecondary Education, which acts as an advisory coordinating council for the various private institutions in the state. In New York, the Board of Regents

for the University of the State of New York is the statewide coordinating agency for the institutional boards of private institutions, for local community college boards, for the State University of New York system and for the City University of New York system. Texas has established the Coordinating Board for the Texas College and University System to coordinate all sectors of public higher education, though private institutions are not directly involved in formal coordination efforts.

It is now most commonly believed that all sectors of higher education, both public and private, are best served by involvement in statewide planning and coordination by an umbrella coordinating agency. As private institutions have received more state financial assistance in various forms, generally in student assistance though also in direct institutional grants, they have been drawn into the coordinating efforts of the states. As states have become more concerned with accountability and efficiency in the spending of state funds, centralized statewide coordination has become a more serious effort. Berdahl (1975) has classified the various kinds of agencies and boards established by states for such a purpose and has noted the increasing popularity of coordinating boards with regulatory powers and the steady importance of consolidated governing structures. At present, fully 48 of the 50 state have established some structure for statewide governance or coordination of higher education.

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CHAPTER 6

FINANCE

Higher education has traditionally been viewed as a social necessity rather than exclusively as an individual benefit. Thus state and local governments have customarily provided some support for public higher education for at least the last century. The public's concern for higher education has also been manifest in financial suport given by foundations, corporations, individual donors and other nongovernmental segments of society. However, the fact that higher education has been seen as beneficial to society as a whole has not meant that the individual student has not had to absorb some of the costs. Financial support for higher education in the United States thus comes from a variety of sources, each with its own rationale for support.

As might be expected, institutions of higher education are funded by different sources based chiefly on the public/private control distinction, and to a lesser extent, on the type of institution. In the latest year for which accurate and complete financial data is available, the 1978 fiscal year, $ 47 billion in current revenue funds from a variety of sources were spent in support of higher education in the United States. The major sources of this revenue were tuition and fees, state, federal and local government appropriations, endowment income, private gifts, grants and contracts and profits from sales and services.

Public institutions depend upon state appropriations as their primary source of revenues. In 1978, these institutions received approximately 45% of their revenues from state government appropriations, while they received only 13% of their revenues from student tuition and fees. On the other hand, private institutions received 44% of their revenues from tuition and fees, only 1% from state governments and about 11% from private gifts, grants and endowment income. Federal government appropriations and revenues from sales and services provided similar percentages of total revenue for both public and private institutions, though private institutions tended to rely slightly more heavily upon

these sources. A breakdown of these sources of revenue is detailed in Appendix 1, Table 10, for the representative fiscal year, 1978.

Type of institution also affects sources of revenues for institutions of higher education. For instance, community colleges depend more upon local government support, while large state or regional universities receive no support from local sources. Research universities are likely to depend upon research contracts from the federal government and private industry more than other institutions. Larger universities are likely to depend more upon revenues from extension services, while small liberal arts colleges, especially in rural areas, are more likely to depend upon revenue from auxiliary enterprises such as dormitories and food services as a significant source of income. The mix of sources of revenues is almost as varied as the number of institutions.

As has been noted, state governments more than any other single entity have assumed the primary financial burden of supporting public higher education. State and local governments provide nearly 50% of the revenues for institutions that educate nearly eight out of every ten students in higher education in the United States today. In nearly all states, the pattern for shared financial responsibility for higher education involves financing public four-year institutions exclusively by state governments and financing public two-year colleges by both state and local governments. However, the way in which state governments fund public higher education varies considerably from state to state. In many states, state appropriations are tied directly to funding formulas that appropriate a number of dollars for each calculated full-time equivalent student, referred to as an FTE. Thus student enrollments determine the amount of the state's subsidy of its public institutions. In other states, funds are allocated based upon the approval and/or alteration of budget requests submitted by institutions through their boards of control to the state legislature. It is possible for various patterns of funding to exist in the same state for different types of institutions. For instance, in Arizona the community colleges receive state funds based upon an enrollment driven formula and make up shortfalls between these appropriations and expenditures from local governments or from external grants. However, the three public four-year universities receive appropriations from the state based upon budget requests made by their Board of Regents to the state legislature. Private institutions also receive state monies through state student financial assistance programs, appropriations for facilities construction and maintenance or through direct institutional grants. However, in most states public funds are almost exclusively reserved for public institutions, with the exception of grants to individual students who are free to decide where to spend their funds.

The federal government's contribution to higher education has been concentrated in three areas: student financial assistance, research and facilities construction. Estimates for federal spending on higher education

in fiscal 1979 are $ 9 billion, plus another $ 1 billion for loans available to students and institutions. Federal support for research and facilities construction has been categorical, that is, designated to be expended for specific purposes and projects only. Funds for research and research facilities construction in 1979 totaled approximately $ 2.5 billion, and federal funds for general facilities construction were an additional $ 100 million, considerably reduced from the levels that funded the tremendous facilities expansion of higher education in the 1960's. The recent emphasis of federal support for higher education has shifted to direct financial assitance to students in the form of basic entitlements, training grants and fellowships and loans. A variety of student aid programs disbursed more than $ 8 billion to students in 1979. This emphasis on direct assitance to students replaced the pre-1972 programs that emphasized institutional aid. The portability of these student-based financial aid funds is an aspect of the current federal programs that is quite controversial, yet it seems likely destined to shape the future of higher education in the United States for decades to come. A summary of federal expenditures on programs in higher education appers in Appendix 1, Table 11, and a breakdown of federal expenditures by student aid program is detailed in Table 14.

The role of student tuition and fees in financing higher education is also a controversial question, and one that is directly related to the government's willingness to subsidize students in the form of student financial aid. Public institutions have traditionally charged considerably less in tuition and fees than private institutions, which depend more heavily on tuition and fees for revenues. In 1978—79, all types of public institutions averaged $ 600 a year in tuition and fees, while private institutions averaged five times that much. Universities charge more than four-year colleges or community colleges, and one state remains committed to zero tuition in the community colleges. Closely related to tuition charges are the costs of educating a student in an institution of higher education. Public institutions recover on the average only 20% of the cost of educating a student from tuition and fees, while private institutions recover on the average nearly 1/3 of the cost. This tuition differential between public and private institutions has traditionally maintained a competitive balance between the more presitigious private institutions and the less expensive public ones. However, as the federal government has increased financial assistance to students, state and local governments have shown an inclination to raise tuitions in public institutions to recoup a greater share of the costs of educating students through government-subsidized tuition payments. However, this shifting of the financial burden of public institutions to the federal government has implications that could alter the traditional balance in the mix of sources of revenue for institutions of higher education.

CHAPTER 7

ADMISSIONS, ACCESS AND FINANCIAL ASSISTANCE

Chapter 1 developed the notion that the evolution of higher education in the United States has been from education for the elite to education for the masses. This evolution has been accomplished through changing criteria for admission to institutions of higher education. These changes for the most part have reflected the evolution of a national sentiment about who should have access to higher education. Even today, however, admissions criteria are anything but uniform. Reflecting their often mentioned diversity, institutions have established criteria that pertain to their diversified institutional missions and their sense of the clientele that they serve. As might be expected, institutions of the same type often share similar admissions criteria, although even institutional type is not an absolutely reliable predictor of admissions policies.

Admissions policies might be grouped into three major categories: open, selective and competitive. Selective admissions policies are aimed at avoiding the admission of students who might not be able to perform satisfactorily in an institution or program. Selective admissions policies are, therefore, specifically related to institutional objectives. The aim of a selective admissions policy might be to assure that advanced training in a technical field could be undertaken successfully or to assure a relatively homogeneous student body, as in the case of a church-related institution. Selective admissions are most likely to be found in small and specialized liberal arts colleges and specialized institutions and programs offering advanced training in specific skills.

Competitive admissions policies make no pretense that certain characteristics or backgrounds are essential to student's success in higher education. Rather, competitive admissions policies are aimed at admitting the most highly qualified students from a pool of qualified applicants. The implicit assumption of such policies is that the institution is viewed as prestigious and desirable to students and that competive admissions

will maintain the institution in the position of attracting and graduating an elite corps of students. Private institutions are most likely to practice such admissions policies, especially the more prestigious private research institutions on the east and west coasts and the more prestigious liberal arts colleges, though some excellent public institutions have had to limit their enrollments by competitive admissions due to excessive demand. Competitive admissions policies normally contain provisions for assuring a balanced student body in terms of racial or other characteristics.

Open admissions is the most recent and most controversial of the admissions policies and is the result of the post-World War II national sentiment that all who can benefit have a right to higher education. Open admissions policies generally have included some minimum requirements, usually a high school diploma or its equivalent, but with the development of the community college movement in the past decade, even these minimum requirements have been dropped in some cases, and admission involves almost no restrictions in some institutions.

There are different models of open admissions. Several large public institutions in the midwestern part of the country admit any high school graduate from the state; however, because remedial programs are generaly not widely available at such institutions to help the marginally qualified, attrition rates at these institutions tend to be high. California has pioneered the differential access model of open admissions. The original California Master Plan developed in 1960 provided for the admission of all high school graduates in the state of California to the state system of higher education; however, access to different institutions within the system was determined by a student's rank in his or her high school graduating class. In the plan, those in the top eighth of their classes were eligible for admission to the several campuses of the University of California, those in the top third of their classes to the state colleges and universities, and the rest to the community colleges. The current Master Plan maintains the concept of differential access but determines eligibility for admission by an index calculated from high school grade averages and standardized test scores. Nearly all of the nation's public community colleges practice some form of open admissions. Several admit not only high school graduates but also all residents of the state eighteen years old or older. Open admissions are most often practiced in public institutions, for the argument that the public who pays for public higher education with its taxes should have virtually unlimited access to it has been persuasive.

Of course, open admissions to higher education would mean very little to many segments of American society if tuition and fees were such that they had the effect of limiting access to these open institutions. Recognizing this, the federal government's major emphasis in support of higher education in the past decade has been student financial assistance programs aimed at eliminating financial barriers to higher education. The specific aims of these programs have been to provide all segments of society both access to institutions of higher education and choice among

the various types of institutions. Implicit in this goal is the desire of the government to promote equality of educational opportunity and to increase the participation of minorities and those from the lower socioeconomic classes. The programs that provide financial assistance to students in pursuit of these goals are numerous and varied; however, most have in common need-based criteria for eligibility.

The Basic Educational Opportunity Grant program enacted by the federal government in 1972 provides the basis for most student aid packages. The grant provides the difference between what a family can contribute to a student's education and $ 1,800, or half of the cost of attending the institution chosen by the student, whichever is less. The fact that the amount of aid is pegged to the cost of attending an institution allows even the poorest students who can qualify academically to attend the more expensive institutions. Supplemental Educational Opportunity Grants are intended, as the name suggests, to supplement the basic grant for the poorer students. The State Student Incentive Grant program is a state-based grant program also enacted in 1972 that can further supplement the assistance that a student receives from other sources. Under the SSIG program, the federal government provides the incentive of matching funds to states to establish their own grant programs. All three of these programs depend upon rather sophisticated analyses of a student's financial need, the actual cost of attending an institution and the student's family's ability to contribute to his or her education.

The federal government has also established loan programs that allow students to borrow at low interest rates the money necessary for their higher education. The National Direct Student Laon program has provided direct loans at low interest rates to students since 1958, and the more recent Guaranteed Student Loan program quarantees loans made by private banks and state loan programs against default and pays part of the interest. The federal government also contributes to the Work Study program by paying 80% of the salaries of students who work on campus. The federal government has since World War II provided veterans of military service during periods of conflict with direct payments for attending institutions of higher education. Currently, there is a program through which the federal government matches on a two-for-one basis each dollar that servicemen or servicewomen save for their education after completing active military service. Finally, in 1965 the federal government also extended direct benefits to Social Security recipients under the age of 22 provided that they remain enrolled in higher education.

It is estimated that the federal government will spend over $ 8 billion for all of these programs in fiscal 1980, a massive effort by any measure. The outlays for these programs in curent and constant dollars for the years 1965 through 1980 are detailed in Appendix 1, Table 14.

Leslie (1977) has made an effort to determine if these efforts have achieved the primary goals of providing equal access to and choice of

institutions of higher education. His conclusions are encouraging in that he finds that rates of participation of minorities and of students from lower-income families are increasing more rapidly than other groups, though students from white upper-class families are still more likely to participate in higher education. Also, he notes that the percentages of minority and economically disadvantaged students attending the more prestigious universities and colleges are also increasing. Thus, it is possible to claim that higher education in the United States has made dramatic progress in opening access to higher education to nearly all who want it both through open admissions policies and student financial aid programs.

CHAPTER 8

STUDENT AND FACULTY CHARACTERISTICS

Only very recently have women come to outnumber men in total enrollments in higher education. In the Fall of 1979, they outnumbered men by 50.6% to 49.4% or by about as much as they outnumber men in the total population. By the Fall of 1980, this majority has grown to 51.6% to 48.4%. Some of the largest increases in the past few years in enrollment rates for women have been among part-time students in two-year institutions, though in the Fall of 1980 full-time enrollments of women also rose substantially. Full-time enrollments for men continue to increase modestly in most types of institutions, with the possible exception of major universities. Women, on the other hand, show increases in both full-time and part-time enrollments in all types of institutions, including full-time enrollments in the universities, but particularly in enrollments in two-year colleges. Table 1 of Appendix 1 details enrollment trends for 1979—80. These support the observation that the composition of the student body of higher education will be increasingly influenced by older and married women returning to college in increasing numbers, as well as by women who might not have attended an institution of higher education in a previous era.

Table 15 of Appendix 1 details trends in student characteristics and attitudes that are not apparent in any examination of enrollment statistics. Surveys conducted by the American Council on Education profile the characteristics and attitudes of first-time entering freshman in the Fall of 1979. The typical freshman is likely to be an eighteen-year old white Protestant who earned average grades of "B" in a surburban public high shool. The typical entering freshman is likely to have decided to go to college to get a better job and is likely to have been accepted by his or her first choice of institution, which was selected primarily for its academic reputation. The first-time entering freshman probably did not apply to any other institution and plans to complete a bachelor's degree, though nearly as many freshmen envision earning a master's degree. The most popular career choices for these entering freshmen are

in business and engineering fields, though dozens of different fields are mentioned. The typical freshman is also likely to be a political middle-of-the-roader, though slightly more liberal than conservative. However, the entering 1979 class appears much more inclined to conservative political positions than its 1969 counterpart.

In other words, in many respects the entering freshman class of 1979 reflects the population of the nation as a whole. The exception is that minority and lower-income groups are not proportionately represented by this class of college freshmen. Of the minorities, blacks most closely represent their numbers in the overall population by their participation rates in higher education, while Hispanics appear to be most underrepresented. Lower-income groups are also underrepresented. Nearly half of the students surveyed came from middle-income families, families with incomes between $ 15,000 and $ 30,000 a year. A third came from upper-income families, those earing over $ 30,000 a year, and a sixth from those families earning less than $ 15,000 a year.

Another survey of interest details the characteristics of students receiving student financial assistance in the academic year 1976—77 by financial aid programs. As might be expected, minorities are more than proportionately represented as recipients of financial aid, as are those from lower-income families with incomes of less than $ 15,000 a year. Except for minor differences, these recipients of student aid appear to attend institutions of various types in a similar pattern as nonrecipients. Details of the characteristics of financial aid recipients are contained in Table 16.

Although the emphasis of this chapter has been on the characteristics of students, a profile of the faculty of higher education is useful to provide a more complete overview of the participants in higher education in the United States. As Appendix 1, Table 19 indicates, men far outnumber women in faculty positions and are generally paid significantly more. Both of these phenomena are generally explained by noting that women are relatively recent entries into faculty ranks and have typically not yet gained the senior ranks that are associated with higher salaries. Also, the faculty ranking structure is at present quite biased against newcomers and is largely responsible for the fact that men predominate in the senior ranks.

The four major ranks — instructor, assistant professor, associate professor and full professor — exist in nearly all four-year institutions, though many two-year institutions refer to all faculty as instructors to avoid the complications of a ranking system. For those institutions that do participate in the ranking system, a master's degree is generally considered minimum for the instructor rank, and the doctorate for the rank of assistant professor and above. Appointments to these two lower ranks are generally made by contract on a yearly basis. An appointment to the position of assistant professor usually is a probationary appointment for a period of five to seven years during which time the appointee must demonstrate his or her value to the institution by teaching, service

and research capabilities. The relative importance of each in tenure decisions depends upon the type of institution, though demonstrated research capabilities are of primary importance in most institutions employing the ranking system. After this probationary period, the assistant professor is either granted or denied tenure, which is usually associated with promotion to the rank of associate professor. Promotion to the rank of full professor is made for meritorious service on a similar basis. Because the greatest growth in higher education took place during the 1960's, the senior ranks were essentially saturated during that decade, mostly by men, and institutions are now in the position of having to deal with top-heavy and expensive faculties. As a result, in most institutions, tenure and promotion have become increasingly difficult to attain, and the prospects for a change in this situation in the near future are minimal.

So, while institutions are presently making concerted efforts to hire both women and minorities to professorial positions, the realities of heavily tenured senior faculties make these objectives difficult to achieve. White males who earned their degrees in the 1960's are very much over-represented on college faculties that are tied into the faculty rank system, which include most universities and four-year colleges. Table 20 of Appendix 1 documents these tendencies quite clearly, though more current data would likely show these tendencies even more strikingly.

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CHAPTER 9

DISTANCE AND RECURRENT EDUCATION

The terms "distance learning" and "recurrent education" are not generally used in the United States to describe non-traditional programs of education. Historically, the terms general extension and agricultural extension were employed as labels for outreach activities in higher education institutions. Such activities include short courses, seminars, correspondence study, off-campus courses, demonstrations, televised instruction, and programmed learning. Today, these "distance learning" activities for adults are referred to as "continuing education" by colleges, universities, voluntary organizations, business and industry, and the general public, and are generally considered to be part of the public service missions of institutions of higher education.

The equivalent term for "recurrent" education is "lifelong learning". Federal legislation in 1976 (Title IB of the Higher Education Act) set forth as a goal for education developing the potential of all persons throughout the life span, and this includes all deliberate learning activities, whether they occur in the work place, the home, through formal or non-formal organizations, through traditional or non-traditional networks or through the self directed efforts of the individaul himself or herself. In the context of lifelong learning, then, "recurrent education" encompasses learner-initiated periods of study whether for occupational or personal concerns as well as institutional programs that provide alternative periods of instruction and related work experience.

When recurrent education is viewed as work related, existing schemes usually are directed to preparation of individuals for entrance into full-time employment. The term currently in use is "cooperative education". It is estimated that approximately 1000 institutions of higher education, or about one-third of such institutions, offer cooperative education programs, and these are offered by two-year and four-year colleges, both publicly and privately controlled. Approximately, 10% of the students to whom such experiences are available actually choose this form. A recent assessment of cooperative education programs concludes

that such programs do, over time, adjust to the labor market. However, the specific job skills receive less attention both at the work place and in instruction that does the general knowledge and skills required in a broad field of study. Most participants in higher continuing education programs are not enrolled for a license or a degree but select courses in personal development, societal or community concerns, as well as courses that are seen as aiding career advancement.

Both distance and recurrent education are included in the broader term "adult education". Approximately one in four American adults participates in an organized learning group each year. Adults participating in educational programs have more formal education than the general adult population. For example, a majority of both male and female participants had some college experience compared to only one third of the general population. These same adults had higher than median incomes, were engaged in professional work and lived in metropolitan suburbs. Cross (1979) has coined the term "non-traditional student" to describe adult part-time learners for whom education is a secondary rather than primary activity, and the rate of participation in postsecondary education activities of these "non-traditional students" continues to grow dramatically.

Technological innovations, as well as the need to respond to a changing mix of students, have resulted in the development of alternate instructional delivery systems, particularly in providing adult education experiences. Correspondence study and televised instruction have been the dominant alternate instructional delivery methods in the past, though a recent survey indicated that together these accounted for less than 5% of adult instructional experiences. These are currently being supplemented by programming supplied to home and business sites by television cable, radio and microwave transmission, individualized instructional packages on magnetic tape and records, and even by telephone transmissions. However, group instruction continues to account for nearly 90% of adult education.

It appears that few adult workers are engaged in alternating periods of work and study. However, the number engaged in part-time study on self-determined schedules continues to rise. Business and industry and professional societies have encouraged the educational development of their employees and are currently taking a leadership role in continuing education. At present, little effort has been made to coordinate the providing of educational experiences variously termed continuing education, lifelong learning or adult education. However, as such educational activities continue to grow in importance, more deliberate efforts at coordination of the kind already established for traditional higher education are likely to be initiated.

CHAPTER 10

EFFORTS IN INTERNATIONAL EDUCATION

The report of President Carter's Commission on Foreign Language and International Studies published in November of 1979 was critical of the level of commitment of higher education in the United States to international education. The commission recommended steps to remedy the situation, including proposals to internationalize curricula by introducing multicultural perspectives in all disciplines but the pure sciences, to promote foreign language and interdisciplinary area studies, and to increase international exchange opportunities for both students and faculty. The commission proposed the expenditure of $ 250 million to establish 200 new international studies programs and to aid institutions in centralizing their international efforts in high-level institutional offices. The commission also called upon the community colleges of the nation to assume the lead in providing citizenry education in international politics and foreign affairs. Of course, these are only recommendations, but the federal government has recently given evidence of its intent to renew its efforts in international education by the creation in 1978 of the International Communication Agency with an official mandate to increase the American people's understanding of other countries and the more recent creation of the Office of International Education in the newly organized Department of Education.

The federal government has been involved in international education since the end of World War II and has funded several programs in this area. The most significant federal efforts have been the result of the National Defense Education Act of 1958 and its subsequent amendments. The act has provided for the development of international studies programs and area centers, for foreign affairs related research, and for foreign language instruction in less commonly taught languages. In 1978—79, the federal government spent $ 8 million in support of 80 international studies centers, 38 international studies programs and 828 fellowships. In a separate program, the federal government also provided $ 32.6 million for foreign-affairs-related research in 1976—77, the last year for which figures are available.

The federal government has also supported programs that promote the exchange of students and scholars for instruction and research. Through the Fulbright scholarship program, 80,000 foreign nationals and 41,000 Americans have received support since 1949. In 1978—79, 1,900 students and scholars received nearly $ 20 million in support.

Nongovernmental agencies have also contributed to efforts in international education. The Ford Foundation spent $ 270 million from 1952 through 1972 for the development of its International Training and Research Program, and the Carnegie and Ford Foundations have funded similar programs. In 1977—78, 68% of all of the academic year fellowships granted by the National Endowment for the Humanities were for international study. The International/Intercultural Community College Consortium, involving more than 80 community colleges, has sponsored efforts to increase student exchanges and to internationalize the curricula of its member colleges. The consortium also sponsors the Global Assistance in Technical Education program that provides expertise to business and industry involved in international projects requiring technical training and education.

At present, however, probably the single most significant aspect of higher education's involvement in international education is the number of international students studying in institutions in the United States. The number has increased dramatically in the past decade; in 1977—78, 235,000 nonimmigrant international students were enrolled in higher education in the U.S. It is estimated that the number exceeded the quarter-of-a-million mark in 1979—80, or roughly 2% of the total enrollment. The impact of this massive influx of students has received considerable attention throughout the higher education community. The National Association of Foreign Student Affairs has been increasingly active in influencing policy decisions that affect international educational exchange and in safeguarding the interests of international students in the United States. Several national organizations of American universities and colleges have expressed collective support for coordinating their efforts to provide an environment in which international education can flourish.

The future of international education in the United States is at present uncertain. The level of support for international education is only recently beginning to increase after having peaked in the mid-1960's. As the Commission on Foregin Language and International Studies has pointed out, present efforts are somewhat limited. The position of international education relative to other domestic priorities is a question that simply has not yet been answered.

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CHAPTER 11

FUTURE PROSPECTS

The prospects for higher education in the coming decade remain bright, despite the fact that the 18 to 21-year-old age cohort, from which the bulk of higher education's student body has traditionally come, is expected to decrease by as much as 30% in the 1980's. However, all of the indications are that college and university enrollments will not experience this drastic a decline. Increasingly, the 18 to 21-year-old, full-time college undergraduate student is being joined in college by less traditional and older students: students who are seeking retraining in new careers or who are seeking the education that they passed up earlier in their lives for work experiences, by graduate students seeking advanced degrees in an increasingly specialized and technical society, and by students who have previously been unsuccessful in their academic work and who are seeking a second chance. Projections by the National Center for Education Statistics actually predict increasing total headcount enrollments through the 1980's, though actual full-time equivalent enrollments are expected to decrease by 5 to 10%. (Appendix 1, Table 2).

Institutions of higher education are likely to be forced to adapt to accomodate their changing clientele in the 1980's and beyond. Programs that fit the variety of needs of reentry students will need to be developed and adapted to be compatible with more traditional program offerings. Professional education and retraining for professionals will undoubtedly be increasingly in demand, as will new high-technology delivery systems to provide such education. New links with business and industry and other external constituencies will be required to coordinate these efforts. Greater efforts will be required to provide remedial educational services, particularly in the public community colleges, to deal with the academic deficiencies of some of the new nontraditional students. Yet institutions of higher education in the United States have demonstrated an enormous stability in the face of great societal change in the past, and they are likely to be able to adapt to changing clientele

and changing circumstances while remaining true to their traditional missions.

The discussion of future enrollments is crucial in that the financial solvency of many institutions is tied directly to enrollments in the form of either tuitions or state appropriations. There are indications that state government will demand increased accountability from the higher education community for the funds that they receive and an increased role in coordinating the overall directions and priorities of the institutions that they fund. Some have seen in these demands a growing lack of confidence in and support for higher education, but the levels at which higher education continues to be funded belie such a conclusion. While appropriations in most states have been increasing at slower rates of growth than previously, state funds for higher education increase incrementally each year and are likely to continue to do so for the foreseeable future. Public confidence nationwide remains high, and there are no signs that it will diminish. Higher education is still perceived by most as the principal means of upward social and economic mobility.

The federal government is likely to make a stronger claim for a role in coordinating efforts in higher education by virtue of its massive support via student financial assistance. Increased attempts will likely be made to coordinate the diversified offerings of institutions of higher education to maximize the efficiency of the use of total resources. Yet students as the consumers of higher educational services will in the long run determine the financial health and viability of institutions as they "vote with their feet", that is, attend those institutions that maintain strong academic excellence and that adapt to meet their needs.

The future of higher education in the United States, much like the future economic and political stability of the world, is uncertain in that it is tied to forces beyond its control. However, higher education has become over the centuries one of the strongest institutions in American Society. It is likely to remain as strong as the society itself.

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Table 1

Estimated fall enrollments, fall 1980

	Universities		Other 4-year institutions		2-year institutions		All public institutions	
	Fall 1980 estimate	Change from 1979	Fall 1980 estimate	Change from 1979	Fall 1980 estimate	Change from 1979	Fall 1980 estimate	Change from 1979
PUBLIC INSTITUTIONS								
Full-time students								
Men	880,301	—1.9%	1,050,904	+10.6%	778,881	+ 4.8%	2,710,086	+4.6%
Women	730,121	+1.7%	1,035,160	+ 8.5%	805,873	+ 9.7%	2,580,154	+6.8%
Total	1,169,422	—0.3%	2,086,064	+ 9.5%	1,584,754	+ 7.2%	5,290,240	+5.7%
Part-time students								
Men	220,480	—7.3%	434,166	— 2.0%	1,134,282	+ 1.0%	1,788,929	—0.1%
Women	244,237	—6.2%	547,029	— 1.8%	1,544,807	+ 5.9%	2,346,073	+2.6%
Total	464,717	—6.7%	981,195	— 1.9%	2,689,089	+ 3.8%	4,135,001	+1.1%
Total enrollment								
Men	1,100,781	—3.0%	1,485,070	+ 6.6%	1,913,163	+ 2.5%	4,499,014	+2.4%
Women	983,358	—0.4%	1,582,189	+ 4.7%	2,360,680	+ 7.1%	4,926,227	+4.8%
Total	2,084,139	—1.8%	3,067,259	+ 5.6%	4,273,843	+ 5.8%	9,425,241	+3.6%
PRIVATE INSTITUTIONS								
Full-time students								
Men	301,412	—1.4%	644,147	+ 1.2%	62,670	+13.6%	1,008,229	+1.1%
Women	220,122	+1.5%	608,493	+ 2.5%	102,371	+18.0%	930,986	+3.8%
Total	521,534	—0.2%	1,252,640	+ 1.8%	165,041	+16.3%	1,939,215	+2.4%
Part-time students								
Men	109,664	+0.2%	217,664	— 3.1%	18,593	+27.7%	345,921	—0.8%
Women	105,159	—2.5%	241,213	+ 2.4%	30,451	+26.7%	376,823	+2.6%
Total	214,823	—1.2%	458,877	— 0.3%	49,044	+27.1%	722,744	+0.9%
Total enrollment								
Men	411,076	—1.0%	861,811	+ 0.1%	81,263	+16.5%	1,354,150	+0.6%
Women	325,281	+0.2%	849,706	+ 2.5%	132,822	+19.8%	1,307,809	+3.4%
Total	736,357	—0.5%	1,711,517	+ 1.3%	214,085	+18.8%	2,661,959	+2.0%
ALL INSTITUTIONS, PUBLIC AND PRIVATE								
Full-time students								
Men	1,181,713	—1.8%	1,695,051	+ 6.8%	841,551	+ 5.4%	3,718,315	+3.6%
Women	959,243	+1.6%	1,643,653	+ 6.2%	908,244	+10.6%	3,511,140	+6.0%
Total	2,140,956	—0.3%	3,338,704	+ 6.5%	1,749,795	+ 8.0%	7,229,455	+4.8%
Part-time students								
Men	330,144	—4.9%	651,830	— 2.4%	1,152,875	+ 1.4%	2,134,849	—0.1%
Women	349,396	—5.1%	788,242	— 0.5%	1,585,258	+ 6.2%	2,722,896	+2.6%
Total	679,540	—5.0%	1,440,072	— 1.4%	2,738,133	+ 4.1%	4,857,745	+1.1%
Total enrollment								
Men	1,511,857	—2.5%	2,346,881	+ 4.1%	1,994,426	+ 3.0%	5,853,164	+2.0%
Women	1,308,639	—0.3%	2,431,895	+ 3.9%	2,493,502	+ 7.8%	6,234,036	+4.5%
Total	1,511,857	—2.5%	2,346,381	+ 4.1%	4,487,928	+ 5.6%	12,087,200	+3.2%

Source : National Center for Education Statistics. Based on Data from 990 Institutions.

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Table 2

Ten year trends in higher education in the United States

High-School Graduates

	1976—77	1978—79	1980—81	1982—83	1984—85	1986—87
Men	1,571,000	1,570,000	1,522,000	1,415,000	1,344,000	1,369,000
Women	1,578,000	1,574,000	1,521,000	1,420,000	1,348,000	1,371,000
Public	2,839,000	2,834,000	2,733,000	2,525,000	2,382,000	2,430,000
Private [1]	310,000	310,000	310,000	310,000	310,000	310,000
Total	3,140,000	3,144,000	3,043,000	2,835,000	2,692,000	2,740,000

College and University Enrollments

TWO-YEAR INSTITUTIONS	1976	1978	1980	1982	1984	1986
Men	1,980,000	2,268,000	2,485,000	2,662,000	2,792,000	2,894,000
Women	1,903,000	2,199,000	2,491,000	2,723,000	2,913,000	3,085,000
Full-time	1,664,000	1,843,000	1,971,000	2,064,000	2,124,000	2,171,000
Part-time	2,219,000	2,624,000	3,005,000	3,321,000	3,581,000	3,808,000
Public	3,752,000	4,323,000	4,825,000	5,228,000	5,546,000	5,819,000
Private	132,000	144,000	151,000	157,000	159,000	160,000
Total	3,883,000	4,467,000	4,976,000	5,385,000	5,705,000	5,979,000
FOUR-YEAR INSTITUTIONS						
Men	3,831,000	3,944,000	3,983,000	3,956,000	3,861,000	3,740,000
Women	3,298,000	3,371,000	3,417,000	3,381,000	3,294,000	3,184,000
Full-time	5,053,000	5,089,000	5,061,000	4,933,000	4,726,000	4,483,000
Part-time	2,076,000	2,226,000	2,339,000	2,404,000	2,429,000	2,441,000
Public	4,902,000	5,045,000	5,116,000	5,083,000	4,970,000	4,834,000
Private	2,227,000	2,270,000	2,284,000	2,254,000	2,185,000	2,090,000
Total	7,129,000	7,315,000	7,400,000	7,337,000	7,155,000	6,924,000
GRADUATES						
Men	715,000	752,000	778,000	787,000	784,000	774,000
Women	619,000	669,000	713,000	738,000	750,000	758,000
Full-time	464,000	489,000	512,000	519,000	517,000	510,000
Part-time	870,000	932,000	979,000	1,006,000	1,017,000	1,022,000
Public	932,000	995,000	1,045,000	1,069,000	1,077,000	1,076,000
Private	401,000	426,000	446,000	456,000	457,000	456,000
Total	1,333,000	1,421,000	1,491,000	1,525,000	1,534,000	1,532,000

Table 2 (continued)

ALL INSTITUTIONS						
Men	5,811,000	6,212,000	6,468,000	6,618,000	6,653,000	6,634,000
Women	5,201,000	5,570,000	5,908,000	6,104,000	6,207,000	6,269,000
Full-time	6,717,000	6,932,000	7,032,000	6,997,000	6,850,000	6,654,000
Part-time	4,295,000	4,850,000	5,344,000	5,725,000	6,010,000	6,249,000
Public	8,653,000	9,368,000	9,941,000	10,311,000	10,516,000	10,653,000
Private	2,359,000	2,414,000	2,435,000	2,411,000	2,344,000	2,250,000
Total	11,012,000	11,782,000	12,376,000	12,722,000	12,860,000	12,903,000

Degrees Awarded

Bachelor's						
	1976—77	1978—79	1980—81	1982—83	1984—85	1986—87
Men	532,000	533,000	547,000	551,000	546,000	528,000
Women	448,000	463,000	474,000	476,000	469,000	451,000
Total	980,000	996,000	1,021,000	1,027,000	1,015,000	979,000
First-professional [2]						
Men	50,300	51,400	52,500	53,100	53,300	53,200
Women	11,500	15,200	17,200	18,900	20,500	22,000
Total	61,800	66,600	69,700	72,000	73,800	75,200
Master's						
Men	170,900	179,800	189,200	197,200	203,700	208,000
Women	151,300	167,000	184,000	201,100	217,600	231,400
Total	322,200	346,800	373,200	398,300	421,300	439,400
Doctor's						
Men	26,800	27,600	28,400	28,600	28,800	28,700
Women	8,500	9,500	10,500	11,400	12,500	13,500
Total	35,300	37,100	38,900	40,000	41,300	42,200

Instructional Staff

Instructor and above						
	1976 [1]	1978	1980	1982	1984	1986
Full-time	434,000	452,000	462,000	462,000	456,000	446,000
Part-time	199,000	215,000	221,000	228,000	229,000	227,000
Total	633,000	667,000	683,000	690,000	685,000	673,000

NOTE : Figures for the years 1977—1987 are projected.
[1] Estimated.
[2] includes chemistry, law, medicine,theology, veterinary medicine, chieropody or podiatry, optometry, and osteopathy.

Source : "Projections of Education Statistics to 1986—1987". Published by National Center for Education Statistics.

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Table 3

Carnegie classification of institutions, numbers of institutions and enrollments, 1976

Type of institution	Enrollments					Number of institutions				
	Public	Private	Total	Percent public	Percent of total	Public	Private	Total	Percent public	Percent of total
TOTAL	8,750.3	2,414.4	11,164.6	78.4%	100.0%	1,466	1,608	3,074	47.7	100.0
Doctorate-Granting Institutions	2,389.0	673.4	3,062.4	78.0	27.4	119	65	184	64.7	6.0
Research Universities I	866.1	277.9	1,144.0	75.7	10.2	29	22	51	56.9	1.7
Research Universities II	677.7	125.0	802.7	84.4	7.2	33	14	47	70.2	1.5
Doctorate-Granting Universities I	604.8	200.0	804.8	75.1	7.2	38	18	56	67.9	1.8
Doctorate-Granting Universities II	234.1	70.5	304.6	76.9	2.7	19	11	30	63.3	1.0
Comprehensive Universities and Colleges	2,372.6	796.9	3,169.5	74.9	28.4	354	240	594	59.6	19.3
Comprehensive Universities and Colleges I	2,055.8	571.6	2,627.4	78.2	23.5	250	131	381	65.6	12.4
Comprehensive Universities and Colleges II	316.8	225.3	542.1	59.4	4.9	104	109	213	48.8	6.9
Liberal Arts Colleges	19.5	511.7	531.2	3.7	4.8	11	572	583	1.9	19.0
Liberal Arts Colleges I	0	153.5	153.5	0	1.4	0	123	123	0	4.0
Liberal Arts Colleges II	19.5	358.2	377.7	5.2	3.4	11	449	460	2.4	15.0
Two-Year Institutions	3,852.3	153.8	3,978.0	96.2	35.6	909	238	1,146	79.3	37.3
Specialized Institutions	137.9	277.9	415.8	33.2	3.7	70	490	560	12.5	18.3
Institutions for Nontraditional Study	12.4	1.7	14.0	88.1	0.1	3	3	6	50.0	0.2

Source: Adapted from U.S. National Center for Education Statistics data by the Carnegie Council on Policy Studies in Higher Education.

Table 4

Simplified degree nomenclature (with recommendations).

Faculty or school	Levels and number of years of full-time study past secondary school					
	Associate, 2	Bachelor, 4	Master, 5—6	Intermediate, 6—7	Doctor, 7 plus	Honorary
Liberal arts	A.A.	B.A.	M.A.	L.Phil.[1]	Ph.D.	L.H.D.[2]
Natural science	A.S.	B.S.	M.S.	L.Phil.[1]	Ph.D.	D.Sc.
Agriculture	A.Agr.	B.S.Agr.	M.Agr.	L.Phil.[1]	Ph.D.	D.Agr.
Architecture		B.Arch.	M.Arch.		D.Arch.	
Business administration	A.B.A.	B.B.A.	M.B.A.	L.Phil.[1]	Ph.D.	D.B.A.
Dentistry					D.D.S.[3]	
Education						
Professional	A.Ed.	B.Ed.	M.Ed.	Ed.S.	Ed.D.[4]	Ped.D.[5]
Liberal arts	A.A.	B.A.	M.A.	L.Phil.[1]	Ph.D.	L.H.D.
Engineering						
Professional	A.E.	B.S.E.	M.E.	Eng.	Ph.D.	D.Eng.
Science	A.A.S.[6]	B.S.	M.S.	L.Phil.[1]	Ph.D.	D.Sc.
Fine arts	A.F.A.	B.F.A.	M.F.A.			D.F.A.
Forestry	A.F.	B.S.F.	M.F.	L.Phil.[1]	Ph.D.	D.F.
Law					J.D.[7]	LL.D.
Library science		B.L.S.	M.L.S.		D.L.S.	L.H.D.[3]
Medicine					M.D.[3]	Med.Sc.D.
Music	A.Mus.	B.Mus.	M.Mus.	L.Mus.A.	A.Mus.D.	D.Mus.
Nursing	A.N.	B.N.	M.S.N.			
Pharmacy		B.S.Pharm.	M.S.Pharm.	Pharm.D.	Ph.D.	
Public administration		B.P.A.	M.P.A.		D.P.A.	LL.D.
Public health			M.P.H.		D.P.H.	
Social work			M.S.W.		D.S.W.	
Theology, divinity					B.D.[8]	D.D.

[1] Licentiate in Philosophy or other generally acceptable new name.
[2] Doctor of Humane Letters.
[3] Advanced professional-scientific work leads to M.S. and Ph.D.
[4] Also Ph.D. in research areas.
[5] Doctor of Pedagogy.
[6] Associate in Applied Science.
[7] Higher professional degrees are Master of Law (LL.M.) and Doctor of Juridical Science (S.J.D.).
[8] Higher professional degrees are Master of Sacred Theology (S.T.N.) and Doctor of Theology (Th.D.).

Source : Stephen H. Spurr. *Academic Degree Structures : Innovative Approaches.* (A General Report Prepared for the Carnegie Commission on Higher Education.) New York : McGraw-Hill Book Company, 1970. p. 19.

Table 5

Number of states classified by type of statewide structure for coordination of higher education

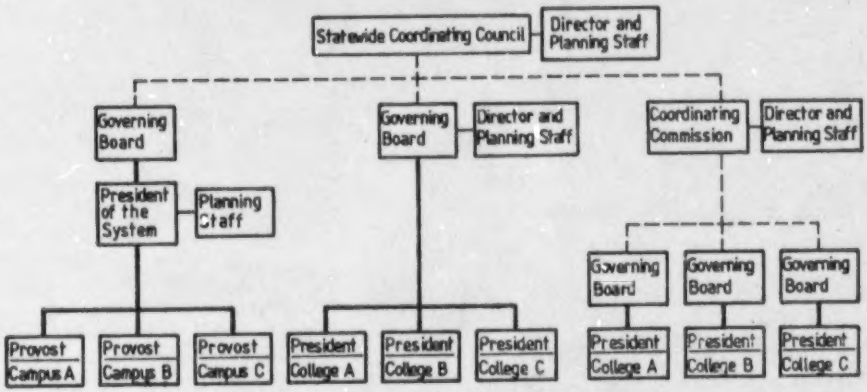
Type of Coordinating Structure	1940	1950	1960	1965	1970	1974	August 1976
None	33	28	17	7	2	2	2
Voluntary Association	0	3	6	3	2	1	0
Advisory Coordinating Board	1	1	5	11	13	11	9
Coordinating Board with Regulatory Powers	1	2	6	12	14	17	20
Consolidated Governing Board	13	14	16	17	19	19	19
Total	48	48	50	50	50	50	50

Source : Berdahl (1975). 1976 data from Glenny (1976, p. 37).

From Kenneth P. Mortimer and T. R. McConnell. *Sharing Authority Effectively*. San Francisco : Jossey-Bass, 1978, p. 228.

Table 6

Types of governing structures in public higher education



Type "A" — Single governing board and president, separate campus provosts. Suitable for a large integrated university with multiple campuses requiring unified control.

Type "B" — Single governing board, separate college presidents. Suitable for 4-year colleges that form a system requiring central control for systematic development.

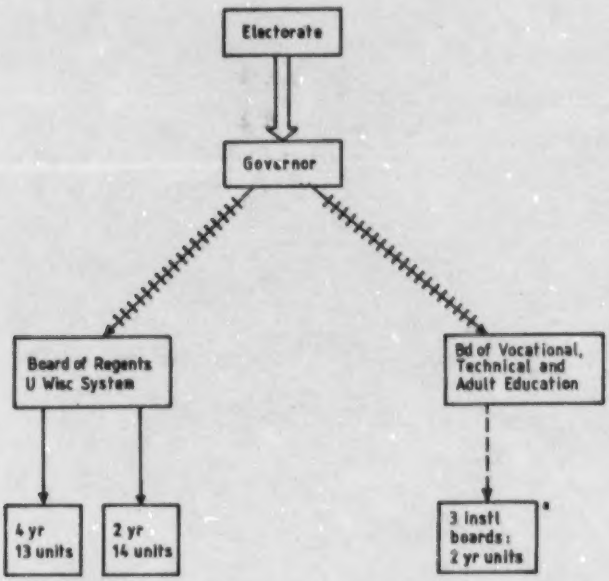
Type "C" — Single coordinating commission, separate college governing boards and presidents.
Suitable for 4-year or 2-year colleges where interests are best served by local independent governance that provides for intermediate coordination of member institutions.

— — — — coordination
———— governance

Source : D. Kent Halstead. *Statewide Planning in Higher Education*. Washington D.C. : Government Printing Office, 1974, p. 238.

Table 7

Organizational chart of higher education in the state of Wisconsin



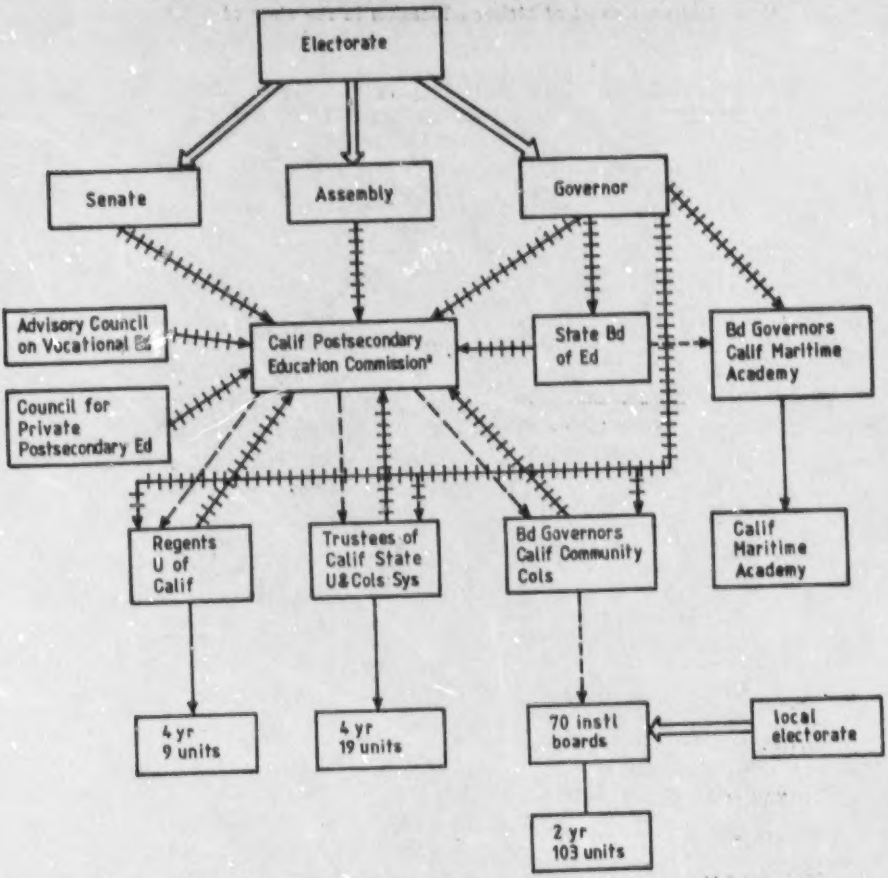
a Board members are appointed by a local appointment committee headed in two cases by the county board chairman and, in the third case, by the local school board president.

NOTE : The appointing processes illustrated above for the University of Wisconsin board and the Board of Vocational, Technical and Adult Education account for the *majority* of members of these boards, but two ex officio members also serve on each board.

Source : *The States and Higher Education*, supplement. Berkeley : Carnegie Council on Policy Studies in Higher Education, 1976, p. 66.

Table 8

Organizational chart of higher education in the state of California



a The commission is composed of 33 members : 13 members represent the general public ; 6 members represent the three public systems of higher education, with each governing board appointing 2 representatives ; 2 members represent the independent colleges and universities ; the remaining 3 members represent, respectively, the California Advisory Council on Vocational Education and Technical Training, the Council for Private Postsecondary Education, and the State Board of Education.

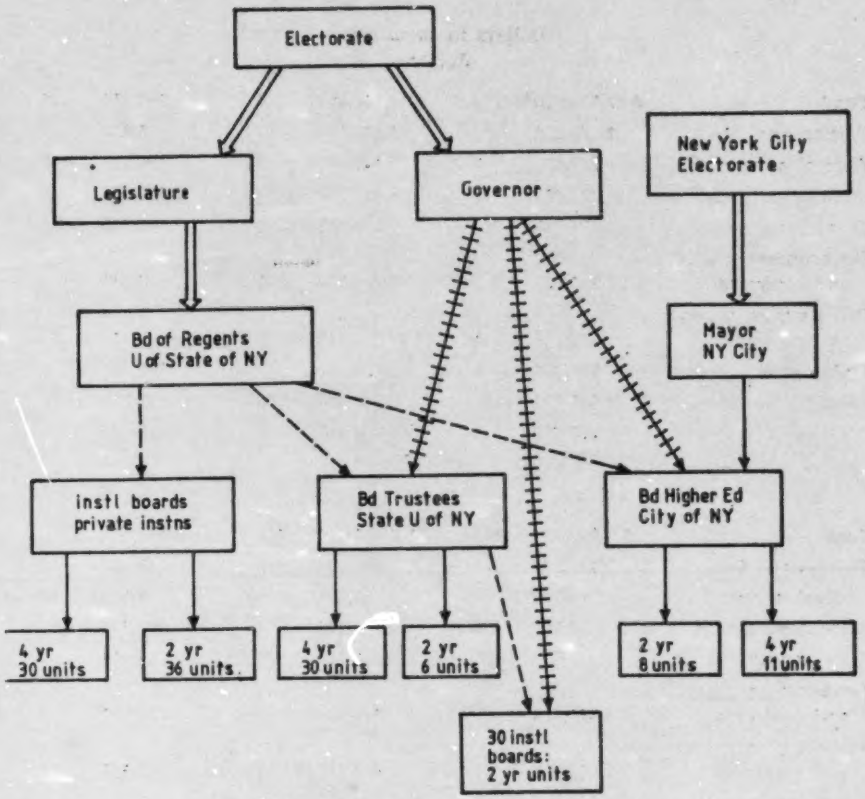
Commissioners representing the general public serve a six-year term and are appointed as follows : four by the governor, four by the Senate Rules Committee, and four by the Speaker of the Assembly. Representatives of the independent institutions serve a three-year term and are appointed by the governor from a list or lists submitted by an association of such institutions. All other members serve at the pleasure of their respective appointing authorities.

NOTE : The appointing processes illustrated above for the University of California and the California State University and Colleges account for the *majority* of members of these boards, but there is also a minority on each board serving ex officio or as student representative chosen by the board. These ex officio members include four state officials, the chief executive officer of the particular board, and, for the University of California, representatives of the alumni association.

Source : *The States and Higher Education*, supplement, Berkeley : Carnegie Council on Policy Studies in Higher Education, 1976, p. 59.

Table 9

Organizational chart of higher education in the state of New York


Electorate
Legislature
Governor
New York City Electorate
Bd of Regents U of State of NY
Mayor NY City
instl boards private instns
Bd Trustees State U of NY
Bd Higher Ed City of NY
4 yr 30 units
2 yr 36 units
4 yr 30 units
2 yr 6 units
2 yr 8 units
4 yr 11 units
30 instl boards: 2 yr units

a Governor appoints there of ten CUNY board members.

b New York City mayor appoints seven of ten CUNY board members.

c Each board has ten members: five appointed by the county legislature, four appointed by the governor, and one student (nonvoting) member elected by the student body.

Source: *The States and Higher Education*, supplement, Berkeley: Carnegie Council on Policy Studies in Higher Educaton, 1976, p. 63.

Table 10

Current-fund revenue of institutions of higher education, fiscal 1978

Purpose	Universities		Other 4-year Institutions		2-year institutions	
	Amount	Percent	Amount	Percent	Amount	Percent
	(Dollars in thousands)					
	Public					
Total	$ 13,2345,10	100	$ 12,402,619	100	$ 5,907,409	100
Tuition and fees	1,689,038	13	1,579,026	13	873,901	15
Federal government	310,623	2	481,661	4	100,049	2
State government	5,405,602	41	5,939,708	48	2,627,963	44
Local government	33,733	(')	126,540	1	1,367,047	23
Government grants and contracts	1,948,749	15	1,294,994	10	426,569	7
Private gifts, grants and contracts	501,758	4	247,189	2	26,980	(')
Endowment income	101,527	1	24,031	(')	3,237	(')
Sales and services	2,949,799	22	2,501,424	20	368,373	6
Other sources	293,670	2	208,047	2	113,287	2
	Private					
Total	$ 7,295,834	100	$ 7,820,379	100	$ 373,281	100
Tuition and fees	2,049,248	28	3,450,346	44	213,712	57
Federal government	98,988	1	53,762	1	1,549	(')
State government	80,102	1	104,989	1	6,684	2
Local government	21	(')	2,749	(')	2,003	1
Government grants and contracts	1,480,614	20	686,410	9	22,082	6
Private gifts, grants and contracts	667,602	9	834,536	11	42,303	11
Endowment income	384,155	5	314,295	4	5,039	1
Sales and service	1,817,152	25	1,773,620	23	69,121	19
Other sources	717,951	10	599,670	8	10,788	3

NOTE : Details may not add to totals because of rounding.
(') Less than 0.5 percent.

Source : U.S. Department of Health, Education and Welfare, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education, 1978, 1979.

Table 11

Federal funds supporting education in educational institutions (in thousands of dollars)

	1974	1975	1976	1977	1978 (estimated)	1979 (estimated)
Total grants and loans	$ 13,090,411	$ 17,604,360	$ 19,552,932	$ 18,787,587	$ 21,451,846	$ 23,018,407
Grants, total	12,738,549	17,124,710	19,157,026	18,465,834	20,292,764	21,918,846
Elementary and secondary education	4,207,467	4,998,055	4,819,460	5,064,514	5,698,154	6,485,096
School assistance in federally affected areas	558,527	618,711	598,884	764,628	810,300	780,500
Educationally deprived/economic opportunity programs	2,264,410	2,764,880	2,646,909	2,856,163	3,243,675	3,891,837
Supporting services	273,783	360,803	336,950	376,792	351,776	368,461
Teacher Corps	33,073	39,002	23,600	2,625	10,125	11,776
Vocational education	289,610	350,867	387,886	308,983	325,802	371,490
Dependents' schools abroad	218,287	234,981	237,296	280,032	301,993	372,116
Public lands revenue for schools	110,116	148,557	130,774	93,401	256,257	281,579
Assistance in special areas	159,549	136,465	117,753	83,523	88,383	88,554
Veterans' education	67,483	113,600	140,400	91,500	75,600	65,600
Emergency school assistance	184,507	197,426	171,790	181,459	208,068	225,134
Other	48,122	32 763	28,218	25,408	26,175	28,049
Higher education	6,063,691	7,991,835	9,675,120	8,898,596	8,634,587	9,085,451
Basic research in U.S. institutions proper	1,299,824	1,270,639	1,421,400	1,637,900	1,854,900	2,070,000
Research facilities	183,274	167,716	224,800	311,500	452,600	452,300
Training grants, fellowships, and traineeships	997,977	1,081,923	1,036,963	984,932	1,069,653	1,100,790
Facilities and equipment	262,526	336,408	295,766	329 221	125,261	102,127
Other institutional support	363,732	427,588	487,519	458,432	517,619	573,338
Other student assistance	2,956,358	4 707,561	6,208,672	5,176,611	4,614,554	4,786,896
Other higher education assistance	....	....	....	...	....	....
Vocational-technical and continuing education (not classifiable by level)	2,467,391	4,134,820	4,662,446	4,502,724	5,960,023	6,348,299
Vocational, technical, and work training	1,494,927	3,037,000	3,405,000	3,575,000	5,135,000	5,687,000
Veterans' education	800,375	898,900	984,100	687,200	564,400	391,100
General continuing education	148,117	151,971	208,192	189,598	206,157	211,851
Training State, local,and Federal civilian personnel	23,972	46,949	65,154	50,926	54,466	58,348
Loans, total (higher education)	351,862	479,650	395,906	321,753	1,159,082	1,099,561
Student loan program. National Defense Education Act	362,795	448,874	419,849	378,432	1,018,789	1,018,546
College facilities loans	—10,933	30,776	—23,943	—56,679	140,293	81,015

From *Digest of Education Statistics*, 1979. Washington D.C. : National Center of Education Statistics, 1979, pp. 166—7.

TABLES

Table 12 a

Estimated charges in institutions of higher education, 1974—1975

Type of charge and type of institution	Charges to full-time undergraduate students			Charges to full-time graduate students		
	Publicly controlled		Privately controlled	Publicly controlled		Privately controlled
	Resident	Non-resident		Resident	Non-resident	
Tuition and fees, room, and board	$ 1,634	$ 2,531	$ 3,359	$ 1,777	$ 2,742	$ 3,689
Universities	1,797	2,771	3,962	1,890	2,837	4,052
Other 4-year institutions	1,579	2,378	3,227	1,664	2,490	3,205
2-year institutions	1,441	1,927	2,504	....	....	....
Tuition and required fees	490	1,387	2,107	624	1,589	2,378
Universities	597	1,571	2,534	690	1,637	2,624
Other 4-year institutions	473	1,272	2,035	558	1,384	2,013
2-year institutions	376	862	1,341	....	....	....
Room charges	502	502	568	510	510	604
Universities	526	526	676	526	526	676
Other 4-year institutions	494	494	531	494	494	531
2-year institutions	425	425	513	....	....	....
Board charges	642	642	684	643	643	707
Universities	674	674	752	674	674	752
Other 4-year institutions	612	612	661	612	612	661
2-year institutions	640	640	650	....	....	....

NOTE : — When the charge was zero or nonapplicable, related enrollment data were not used in the computation of the weighted average charge.

SOURCE : U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Higher Education Basic Student Charges, 1974—75.

Table 12 b

Estimated charges in institutions of higher education, 1968—1969 1973—1974 and 1978—1979

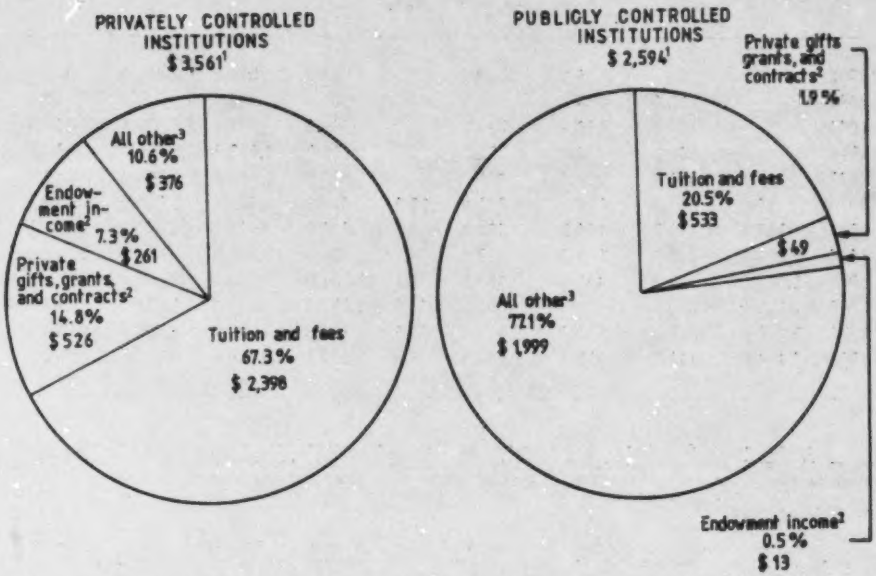
Year and control of institution	Tuition and required fees				Board rates				Charges for dormitory room			
	All institutions	Universities	Other 4-year institutions	2-year institutions	All institutions	Universities	Other 4-year institutions	2-year institutions	All institutions	Universities	Other 4-year institution	2-year institution
1968—69 :												
Public	$ 295	$ 377	$ 281	$ 170	$ 485	$ 509	$ 464	$ 435	$ 337	$ 359	$ 318	$ 278
Private	1,383	1,638	1,335	956	534	572	520	529	404	463	382	391
1973—74 :												
Public	438	581	463	274	599	621	579	591	480	505	464	409
Private	1,989	2,375	1,925	1,303	642	721	613	624	533	622	502	483
1978—79 :												
Public	600	789	648	432	826	855	788	863	664	702	650	507
Private	2,970	3,667	2,681	1,896	921	1,008	883	892	777	938	706	682

NOTE : — Data are for the entire academic year and are average charges per full-time equivalent student. They have not been adjusted for changes in the purchasing power of the dollar.

SOURCE : — U.S. Department of Health, Education and Welfare, National Center for Education Statistics, Higher Education Basic Student Charges, Fall Enrollment in Higher Education, and estimates for 1978—1979.

Table 13

Costs of higher education per student, 1975—1976



[1] "Student education" costs are those for instruction, academic support (including libraries), student services, institutional support, and operation and maintenance of the plant. Current fund educational and general expenditures which are not considered to be for "student education" are those for research, public service, scholarships and fellowships, and educational and general mandatory transfers.

[2] The data on private gifts, grants, and contracts and on endowment income include only that portion which may be considered to be included in expenditures for "student education". Estimates for these items were made on the basis of data reported specifically in 1973—1974.

[3] Estimated to be nearly entirely from Federal, State, and local governments.

Source: *Digests of Education Statistics, 1979.* Washington D.C.: National Center for Education Statistics, 1979. p. 139.

Table 14

Federal outlays for selected student aid programs (in millions of dollars)

Fiscal year a)	U.S. Department of Health, Education and Welfare Programs								
	Basic Grants	SEOG	Work-Study	Loan programs b)	SSIG program	Social security benefits	Total		Benefits for veterans
							Current dollars	Constant dollars	
1965			55.7	160.1			215.8	288.5	
1967		112.0	134.1	238.0		256.0	740.1	940.4	43.0
1969		124.6	139.9	230.7		366.0	861.2	1,008.4	275.9
1971		167.7	158.4	231.7		455.0	1,012.8	1,068.4	590.0
1973		210.9	270.2	685.7		638.0	1,804.8	1,750.5	1,117.3
1974	49.0	211.4	271.1	620.0	19.0	618.0	1,788.5	1,595.5	2,016.0
1975	342.0	240.3	300.2	680.0	20.0	840.0	2,422.5	1,964.7	2,309.0
1976	905.0	241.9	525.0	619.0	42.7	998.0	3,331.6	2,516.3	3,479.0
1977	1,387.0	252.8	437.4	589.0	62.1	1,181.0	3,909.3	2,782.4	4,301.0
1978	2,140.0	270.1	435.0	805.3	64.0	1,227.0	4,941.4	3,287.7	2,697.0
1979	2,600.0	340.1	550.0	1,030.7	63.8	1,378.0	5,962.6	3,701.2	2,214.0
1980	2,444.0	340.1	550.0	1,194.4	76.8	1,509.0	6,114.3	3,546.6	1,892.0

a) Amounts for fiscal years prior to 1978 are actual outlays; amounts for fiscal years 1978 and 1979 are estimated outlays; amounts for 1980 are those in the administration budget. The Consumer Price Index for 1978—1979 and 1979—1980 has been estimated.

b) Includes appropriations for NDSL program plus interest subsidies and cost of defaults in GSL program.

Source: Carnegie Council on Policy Studies in Higher Education (1975, Table 4); Special Analyses, Budget of the U.S. Government (selected years); The Budget of the U.S. Government (selected years); and Fields (1979).

Table 15

Characteristics of entering freshmen, 1969 and 1979

Student Goals	Women		Men	
	1969	1979	1969	1979
Reasons reported as very important in deciding to go to college				
Parents wanted me to go	—	31.3%	—	28.0%
Could not find a job	—	5.6%	—	4.6%
Get away from home	—	8.1%	—	7.4%

Table 15 (continued)

Student Goals	Women		Men	
	1969	1979	1969	1979
Get a better job	—	78.0%	—	77.5%
Gain general education	—	74.5%	—	62.1%
Improve reading, study skills	—	41.7%	—	36.3%
Nothing better to do	—	1.9%	—	2.1%
Become more cultured	—	39.0%	—	26.5%
Make more money	—	59.2%	—	68.9%
Learn more about things	—	78.4%	—	68.8%
Meet new, interesting people	—	63.8%	—	48.4%
Prepare for graduate school	—	45.9%	—	44.8%
Reasons noted as very important in selecting this college				
Relatives wishes	—	6.7%	—	5.1%
Teacher's advice	—	4.0%	—	4.0%
Good academic reputation	—	52.8%	—	45.3%
Financial aid offered	—	16.7%	—	15.1%
Not accepted anywhere else	—	2.5%	—	3.4%
Advice of former student	—	15.7%	—	13.1%
Special education programs	—	30.8%	—	21.7%
Low tuition	—	17.2%	—	16.0%
Guidance counselor's advice	—	7.7%	—	7.3%
Wanted to live at home	—	11.8%	—	10.2%
Friend's suggestion	—	7.5%	—	6.4%
College recruiter	—	3.9%	—	5.6%
Number of other colleges applied to for admission this year :				
None	52.6%	40.5%	503.%	38.5%
One	20.7%	18.8%	19.4%	16.5%
Two	13.6%	17.0%	14.1%	16.5%
Three	7.4%	12.1%	8.3%	14.0%
Four	3.3%	5.5%	4.2%	6.6%
Five	1.5%	3.2%	2.1%	4.0%
Six or more	0.9%	3.0%	1.7%	3.9%
College attended is student's :				
First choice	—	76.4%	—	74.8%
Second choice	—	18.4%	—	18.7%
Third choice	—	3.7%	—	4.3%
Less than third choice	—	1.5%	—	2.3%
Highest degree planned :				
None	2.3%	1.8%	1.9%	1.7%
Associate	10.9%	8.9%	7.1%	5.6%
Bachelor's	44.0%	37.5%	33.7%	35.4%
Master's	32.6%	32.1%	33.2%	32.4%
Ph.D. or Ed.D.	6.1%	8.0%	13.4%	9.4%

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Table 15 (continued)

Student Goals	Women		Men	
	1969	1979	1969	1979
M.D., D.C., D.D.S. or D.V.M.	1.8%	5.5%	5.9%	7.0%
LL.B. or J.D.	0.4%	3.5%	2.2%	5.2%
B.D. or M.Div.	0.2%	0.4%	0.5%	0.8%
Other	1.9%	2.3%	2.1%	2.4%
Probable field of study				
Arts and humanities				
Art, fine	10.4%	—	7.4%	—
Art, fine and applied	—	3.0%	—	1.5%
English	6.1%	1.2%	1.7%	0.6%
History, political science	5.0%	2.2%	7.2%	3.2%
History	—	0.4%	—	0.9%
Journalism	—	1.9%	—	1.3%
Language (except English)	—	0.7%	—	0.2%
Music	—	1.4%	—	1.4%
Philosophy	—	0.1%	—	0.2%
Speech	—	0.2%	—	0.1%
Theater and drama	—	1.0%	—	0.6%
Theology or religion	—	0.1%	—	0.4%
Other arts and humanities	—	0.7%	—	0.3%
Biological sciences	2.7%	3.9%	3.8%	4.3%
Biology (general)	—	1.6%	—	1.8%
Biochemistry, biophysics	—	0.4%	—	0.5%
Botany	—	0.1%	—	0.1%
Marine (life) science	—	0.4%	—	0.7%
Microbiology, bacteriology	—	0.4%	—	0.2%
Zoology	—	0.4%	—	0.4%
Other biological sciences	—	0.6%	—	0.6%
Business	12.5%	23.1%	12.1%	25.1%
Accounting	—	6.0%	—	6.3%
Business administration	—	5.5%	—	9.4%
Finance	—	0.4%	—	0.9%
Marketing	—	1.9%	—	1.8%
Management	—	2.8%	—	5.6%
Secretarial studies	—	5.2%	—	0.0%
Other business	—	1.3%	—	1.1%
Education	19.2%	12.5%	4.8%	3.6%
Business education	—	0.3%	—	0.1%
Elementary education	—	4.7%	—	0.3%
Music or art education	—	0.5%	—	0.2%
Physical ed., recreation	—	2.3%	—	2.2%
Secondary education	—	0.8%	—	0.5%
Special education	—	3.3%	—	0.2%
Other education	—	0.6%	—	0.1%
Engineering	0.4%	2.5%	18.0%	19.2%
Aeronautical	—	0.2%	—	1.8%
Civil	—	0.3%	—	2.2%
Chemical	—	0.5%	—	1.5%
Electrical or electronic	—	0.4%	—	6.2%
Industrial	—	0.2%	—	0.9%
Finance	—	0.3%	—	3.8%
Other engineering	—	0.6%	—	2.8%

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Table 15 (continued)

Student Goals	Women		Men	
	1969	1979	1969	1979
Physical sciences	1.0%	1.8%	3.6%	3.9%
Astronomy	—	0.0%	—	0.1%
Atmospheric science	—	0.0%	—	0.2%
Chemistry	—	0.6%	—	1.1%
Earth science	—	0.2%	—	0.5%
Marine science	—	0.2%	—	0.4%
Mathematics, statistics	3.8%	0.6%	3.3%	0.7%
Physics	—	0.1%	—	0.7%
Other physical sciences	—	0.1%	—	0.2%
Professional				
Architecture, urban plan	—	0.6%	—	1.8%
Home economics	—	1.4%	—	0.2%
Health professions (non-M.D.)	10.7%	—	1.5%	—
Health technology	—	3.4%	—	0.8%
Library or archival science	—	0.1%	—	0.0%
Nursing	—	6.8%	—	0.2%
Pharmacy	—	0.5%	—	0.5%
Pre-professional	2.3%	2.9%	9.4%	3.6%
Therapy (physical, etc.)	—	2.7%	—	0.4%
Other professional	—	1.7%	—	1.4%
Social Science				
Anthropology	—	0.1%	—	0.1%
Economics	—	0.3%	—	0.5%
Geography	—	0.0%	—	0.1%
Political science	—	1.8%	—	2.3%
Psychology, sociology, and anthropology	12.8%	4.4%	5.7%	1.6%
Psychology	—	3.7%	—	1.3%
Social work	—	2.8%	—	0.3%
Sociology	—	0.6%	—	0.2%
Other social sciences	—	0.3%	—	0.2%
Technical				
Building trades	—	0.0%	—	0.8%
Data processing, computer programming	—	1.6%	—	2.1%
Drafting or design	—	0.3%	—	1.0%
Electronics	—	0.1%	—	1.3%
Mechanics	—	0.0%	—	0.9%
Other technical	—	0.1%	—	0.7%
Other fields				
Agriculture and forestry	0.2%	—	3.7%	4.5%
Agriculture	—	1.3%	—	3.1%
Communications	—	1.7%	—	1.9%
Computer science	—	1.4%	—	2.1%
Forestry	—	0.4%	—	1.4%
Law enforcement	—	1.0%	—	2.0%
Military science	—	0.0%	—	0.2%
Other fields	—	1.7%	—	1.1%
Undecided	2.1%	5.6%	2.4%	3.9%

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Table 15 (continued)

Student Goals	Women		Men	
	1969	1969	1969	1979
Probable career occupation :				
Accountant or actuary	—	5.8%	—	5.6%
Actor or entertainer	—	1.1%	—	0.9%
Architect or urban planner	—	0.8%	—	2.8%
Artist	—	2.1%	—	1.3%
Artist (including performer)	7.6%	—	4.3%	—
Business	3.6%	15.0%	16.9%	17.8%
Clerical	—	4.1%	—	0.4%
Executive	—	8.2%	—	11.6%
Proprietor	—	1.2%	—	4.5%
Salesperson, buyer	—	1.5%	—	1.3%
Clergy	0.3%	0.1%	1.4%	0.7%
Clinical psychologist	—	1.6%	—	0.5%
College teacher	0.8%	0.2%	1.3%	0.3%
Computer programmer, analyst	—	3.3%	—	4.7%
Conservationist or forester	—	0.7%	—	1.8%
Dentist or physician	1.3%	3.5%	4.9%	5.2%
Dentist	—	0.6%	—	1.2%
Dietitian or home economist	—	0.7%	—	0.1%
Engineer	0.3%	2.3%	14.5%	16.8%
Farmer or forester	0.2%	—	3.0%	—
Farmer or rancher	—	0.5%	—	2.0%
Foreign service worker	—	0.6%	—	0.3%
Health professional (non-M.D.)	6.0%	—	2.7%	—
Homemaker (full-time)	—	0.4%	—	0.0%
Interior decorator	—	1.1%	—	0.1%
Interpreter, translator	—	0.3%	—	0.0%
Lab. technician or hygienist	—	2.7%	—	0.6%
Law enforcement officer	—	0.7%	—	1.7%
Lawyer or judge	0.8%	3.4%	5.6%	5.0%
Military service	—	0.3%	—	1.9%
Musician	—	1.1%	—	1.6%
Nurse	6.0%	7.0%	0.1%	0.2%
Optometrist	—	0.2%	—	0.3%
Pharmacist	—	0.6%	—	0.6%
Physician	—	2.9%	—	4.0%
Research scientist	1.4%	1.3%	3.3%	2.4%
School counselor	—	0.4%	—	0.1%
School administrator	—	0.0%	—	0.0%
Social, welfare, or recreation worker	—	3.9%	—	0.6%
Statistician	—	0.1%	—	0.1%
Therapist (physical, etc.)	—	3.5%	—	0.6%
Teacher (elementary)	19.3%	7.0%	1.0%	0.5%
Teacher (secondary)	17.2%	3.0%	9.9%	2.1%
Veterinarian	—	1.4%	—	0.9%
Writer or journalist	—	2.7%	—	1.7%
Skilled trades	—	0.4%	—	2.7%
Other	—	8.9%	—	6.2%
Undecided	11.0%	11.4%	11.6%	9.4%

Table 15 (continued)

Student Background	Women		Men	
	1969	1979	1969	1979
Age by December 31 :				
16 or younger	0.1%	0.1%	0.1%	0.1%
17	4.8%	3.5%	3.1%	2.2%
18	79.3%	77.2%	70.0%	71.0%
19	10.6%	14.9%	17.0%	20.9%
20	1.3%	1.5%	2.7%	2.6%
21	0.6%	0.5%	1.3%	1.1%
Older than 21	3.3%	2.2%	5.8%	2.2%
Racial group :				
White	90.0%	85.4%	91.6%	87.2%
Black	7.1%	10.1%	5.1%	8.2%
American Indian	0.3%	1.0%	0.3%	1.0%
Oriental	1.5%	1.2%	1.8%	1.6%
Mexican-American	—	1.2%	—	1.1%
Puerto Rican	—	1.0%	—	1.1%
Other	—	1.8%	—	2.2%
Religious preference :				
Protestant	50.8%	34.3%	48.0%	33.0%
Roman Catholic	30.2%	38.2%	28.9%	38.1%
Jewish	3.7%	3.5%	3.4%	3.8%
Other	4.8%	17.5%	4.5%	15.8%
None	10.6%	6.6%	15.3%	9.4%
Average grade in high school :				
A or A +	5.8%	10.8%	3.2%	7.5%
B +	10.7%	13.4%	6.3%	9.6%
A —	19.9%	21.7%	12.3%	16.8%
B	27.8%	28.1%	20.6%	25.8%
B —	14.5%	11.4%	16.6%	16.1%
C +	12.6%	8.9%	20.3%	14.8%
C	8.4%	5.4%	19.4%	9.0%
D	0.3%	0.2%	1.3%	0.5%
Type of secondary school :				
Public	83.4%	86.2%	83.7%	85.3%
Private, denominational	13.1%	10.9%	12.1%	11.2%
Private, nondenominational	2.9%	2.9%	3.5%	3.5%
Other	0.6%	—	0.8%	—
Remedial work needed in :				
English	—	10.1%	—	13.5%
Reading	—	4.6%	—	5.7%
Mathematics	—	24.2%	—	19.5%
Social studies	—	3.2%	—	2.3%
Science	—	11.4%	—	7.1%
Foreign language	—	8.1%	—	9.4%
Physically handicapped :				
No	—	97.5%	—	97.0%
Yes	—	2.5%	—	3.0%

Table 15 (continued)

Student Background	Women		Men	
	1969	1979	1969	1979
Type of handicap :				
Hearing	—	9.1%	—	10.9%
Speech	—	2.3%	—	5.3%
Visual	—	38.5%	—	35.0%
Orthopedic	—	15.3%	—	17.2%
Learning disability	—	4.4%	—	4.9%
Other	—	14.3%	—	15.8%
Residence preferred in fall term :				
With parents or relatives	—	19.4%	—	21.9%
Other home or apartment	—	22.9%	—	25.9%
College dormitory	—	47.4%	—	40.5%
Fraternity or sorority	—	3.6%	—	5.0%
Other campus housing	—	4.0%	—	3.6%
Other	—	2.7%	—	3.2%

Student Finances	Women		Men	
	1969	1979	1969	1979
Concern about financing college :				
No concern	33.0%	30.0%	35.2%	37.8%
Some concern	55.9%	53.9%	55.4%	49.4%
Major concern	11.1%	16.1%	9.4%	12.8%
Estimated parental income				
Less than $ 4,000	5.2%	4.8%	5.2%	3.4%
$ 4,000 — $5,999	9.3%	4.2%	8.8%	3.2%
$ 6,000 — $ 7,999	13.7%	4.2%	13.2%	3.5%
$ 8,000 — $ 9,999	15.7%	4.8%	17.3%	3.7%
$ 10,000 — $ 14,499	27.6%	18.0%	29.4%	14.3%
$ 15,000 — $ 19,999	13.1%	13.4%	12.1%	14.5%
$ 20,000 — $ 24,999	6.6%	15.9%	5.9%	17.3%
$ 25,000 — $ 29,999	3.0%	9.7%	2.7%	10.8%
$ 30,000 or more	5.0%	26.9%	5.4%	29.3%
$ 30,000 — $ 34,999	—	7.8%	—	8.8%
$ 35,000 — $ 39,999	—	5.5%	—	5.6%
$ 40,000 — $ 49,999	—	5.6%	—	6.2%
$ 50,000 — $ 99,999	—	5.9%	—	6.7%
$ 100,000 or more	—	1.9%	—	2.2%
Major sources of support for college expenses :				
Personal savings or earnings	20.6%	—	36.0%	—
Parental or family aid	57.5%	—	42.9%	—
Repayable loan	14.1%	—	11.7%	—
Scholarship, grant, gift	18.4%	—	18.0%	—
Amount of parental aid :				
None	—	30.9%	—	33.3%
$ 1 — $ 499	—	21.7%	—	20.2%
$ 500 — $ 999	—	10.4%	—	11.0%
$ 1,000 — $ 1,499	—	7.7%	—	8.4%
$ 1,500 — $ 2,000	—	7.0%	—	6.6%
Over $ 2,000	—	22.2%	—	20.5%

Table 15 (continued)

Student Finances	Women		Men	
	1969	1979	1969	1979
From Basic Educational Opportunity Grant :				
None	—	67.2%	—	70.0%
$ 1 — $ 499	—	10.3%	—	9.4%
$ 500 — $ 999	—	10.4%	—	9.3%
$ 1,000 — $ 1,499	—	7.5%	—	6.8%
$ 1,500 — $ 2,000	—	3.7%	—	3.3%
Over $ 2,000	—	0.9%	—	1.2%
Applied for aid	—	46.6%	—	42.7%
Qualified for aid	—	34.7%	—	31.3%
From Supplemental Educational Opportunity Grant :				
None	—	92.9%	—	92.7%
$ 1 — $ 499	—	3.6%	—	3.5%
$ 500 — $ 999	—	2.1%	—	2.3%
$ 1,000 — $ 1,499	—	0.9%	—	1.0%
$ 1,500 — $ 2,000	—	0.3%	—	0.4%
Over $ 2,000	—	0.1%	—	0.2%
From state scholarship or grant :				
None	—	84.4%	—	85.5%
$ 1 — $ 499	—	8.2%	—	7.3%
$ 500 — $ 999	—	4.0%	—	3.8%
$ 1,000 — $ 1,499	—	1.9%	—	1.8%
$ 1,500 — $ 2,000	—	1.1%	—	1.0%
Over $ 2,000	—	0.5%	—	0.6%
From college grant :				
None	—	88.2%	—	89.2%
$ 1 — $ 499	—	4.9%	—	4.1%
$ 500 — $ 999	—	3.1%	—	2.7%
$ 1,000 — $ 1,499	—	1.8%	—	1.7%
$ 1,500 — $ 2,000	—	0.9%	—	0.9%
Over $ 2,000	—	1.1%	—	1.4%
From other private grant :				
None	—	92.5%	—	93.8%
$ 1 — $ 499	—	4.1%	—	3.0%
$ 500 — $ 999	—	1.8%	—	1.5%
$ 1,000 — $ 1,499	—	0.8%	—	0.8%
$ 1,500 — $ 2,000	—	0.4%	—	0.4%
Over $ 2,000	—	0.3%	—	0.5%
From federal guaranteed student loan :				
None	—	87.5%	—	86.0%
$ 1 — $ 499	—	1.6%	—	1.9%
$ 500 — $ 999	—	1.8%	—	2.2%
$ 1,000 — $ 1,499	—	2.6%	—	2.7%
$ 1,500 — $ 2,000	—	2.9%	—	2.9%
Over $ 2,000	—	3.5%	—	4.4%
Applied for aid	—	7.8%	—	9.6%
Qualified for aid	—	6.3%	—	10.3%

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Table 15 (continued)

Student Finances	Women		Men	
	1969	1979	1969	1979
From National Defence Student Loan :				
None	—	91.9%	—	92.6%
$ 1 — $ 499	—	2.6%	—	2.2%
$ 500 — $ 999	—	2.4%	—	2.3%
$ 1,000 — $ 1,499	—	1.8%	—	1.8%
$ 1,500 — $ 2,000	—	0.7%	—	0.6%
Over $ 2,000	—	0.6%	—	0.6%
From college loan :				
None	—	96.8%	—	96.4%
$ 1 — $ 499	—	0.9%	—	0.9%
$ 500 — $ 999	—	0.7%	—	0.8%
$ 1,000 — $ 1,499	—	0.7%	—	0.7%
$ 1,500 — $ 2,000	—	0.5%	—	0.5%
Over $ 2,000	—	0.5%	—	0.7%
From other loan :				
None	—	96.4%	—	96.6%
$ 1 — $ 499	—	0.8%	—	0.8%
$ 500 — $ 999	—	0.7%	—	0.7%
$ 1,000 — $ 1,499	—	0.7%	—	0.6%
$ 1,500 — $ 2,000	—	0.6%	—	0.5%
Over $ 2,000	—	0.7%	—	0.7%
From college work-study program :				
None	—	87.3%	—	89.4%
$ 1 — $ 499	—	6.3%	—	4.9%
$ 500 — $ 999	—	4.8%	—	4.0%
$ 1,000 — $ 1,499	—	1.3%	—	1.2%
$ 1,500 — $ 2,000	—	0.2%	—	0.2%
Over $ 2,000	—	0.1%	—	0.2%
From part-time employment :				
None	—	76.5%	—	74.9%
$ 1 — $ 499	—	17.5%	—	16.5%
$ 500 — $ 999	—	4.2%	—	5.6%
$ 1,000 — $ 1,499	—	1.0%	—	1.6%
$ 1,500 — $ 2,000	—	0.3%	—	0.6%
Over $ 2,000	—	0.4%	—	0.8%
From full-time employment :				
None	—	96.3%	—	97.3%
$ 1 — $ 499	—	0.8%	—	1.2%
$ 500 — $ 999	—	0.4%	—	0.6%
$ 1,000 — $ 1,499	—	0.2%	—	0.4%
$ 1,500 — $ 2,000	—	0.1%	—	0.2%
Over $ 2,000	—	0.2%	—	0.5%
From summer employment :				
None	—	58.3%	—	55.7%
$ 1 — $ 499	—	25.6%	—	21.3%
$ 500 — $ 999	—	10.5%	—	12.7%

Table 15 (continued)

Student Finances	Women		Men	
	1969	1979	1969	1979
$ 1,000 — $ 1,499	—	3.8%	—	6.0%
$ 1,500 — $ 2,000	—	1.1%	—	2.3%
Over $ 2,000	—	0.6%	—	2.0%
From other savings :				
None	—	82.2%	—	81.9%
$ 1 — $ 499	—	12.1%	—	11.1%
$ 500 — $ 999	—	2.8%	—	3.3%
$ 1,000 — $ 1,499	—	1.5%	—	1.5%
$ 1,500 — $ 2,000	—	0.6%	—	0.7%
Over $ 2,000	—	0.8%	—	1.4%
From spouse :				
None	—	99.1%	—	99.3%
$ 1 — $ 499	—	0.5%	—	0.3%
$ 500 — $ 999	—	0.2%	—	0.1%
$ 1,000 —$ 1,499	—	0.1%	—	0.1%
$ 1,500 — $ 2,000	—	0.0%	—	0.0%
Over $ 2,000	—	0.1%	—	0.1%
From personal G.I. benefits :				
None	—	99.6%	—	98.7%
$ 1 — $ 499	—	0.2%	—	0.4%
$ 500 — $ 999	—	0.1%	—	0.2%
$ 1,000 — $ 1,499	—	0.0%	—	0.2%
$ 1,500 — $ 2,000	—	0.0%	—	0.1%
Over $ 2,000	—	0.1%	—	0.5%
From parent's G.I. benefits :				
None	—	96.8%	—	96.9%
$ 1 — $ 499	—	0.6%	—	0.5%
$ 500 — $ 999	—	0.2%	—	0.2%
$ 1,000 — $ 1,499	—	0.1%	—	0.1%
$ 1,500 — $ 2,000	—	0.1%	—	0.1%
Over $ 2,000	—	0.2%	—	0.2%
From Social Security benefits :				
None	—	94.1%	—	95.3%
$ 1 — $ 499	—	3.1%	—	2.1%
$ 500 — $ 999	—	1.0%	—	0.9%
$ 1,000 — $ 1,499	—	0.7%	—	0.7%
$ 1,500 — $ 2,000	—	0.5%	—	0.4%
Over $ 2,000	—	0.5%	—	0.7%
From other sources :				
None	—	96.6%	—	95.9%
$ 1 — $ 499	—	1.5%	—	1.3%
$ 500 — $ 999	—	0.6%	—	0.5%
$ 1,000 — $ 1,499	—	0.3%	—	0.3%
$ 1,500 — $ 2,000	—	0.2%	—	0.2%
Over $ 2,000	—	0.7%	—	1.9%

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Table 15 (continued)

Student Attitudes	Women		Men	
	1969	1979	1969	1979
Students' political views :				
Far left	2.2%	1.9%	3.8%	2.2%
Liberal	28.3%	22.0%	30.5%	23.1%
Middle of the road	47.3%	61.5%	42.2%	54.1%
Conservative	20.8%	14.0%	20.4%	19.4%
Far right	1.6%	0.7%	3.1%	1.2%
Students agree strongly or somewhat that :				
Colleges should regulate students off campus	19.1%	13.9%	20.4%	16.8%
Students should evaluate faculty	66.3%	70.7%	68.5%	70.4%
Colleges should regulate student publications	52.0%	41.2%	52.0%	39.3%
Colleges have a right to ban speakers	23.9%	23.8%	34.7%	27.6%
Marijuana should be legalized	22.4%	43.6%	28.1%	48.6%
The disadvantaged should receive preferential treatment	39.0%	37.5%	43.3%	39.0%
Capital punishment should be abolished	59.0%	40.7%	50.0%	26.0%
Criminals have too many rights	46.8%	57.0%	60.0%	66.1%
Abortion should be legal	74.1%	53.8%	77.9%	53.0%
Divorce laws should be liberalized	35.2%	46.0%	46.5%	51.6%
Government is not controlling pollution	—	84.1%	—	77.3%
Government is not protecting consumers	—	76.7%	—	70.8%
Federal government should discourage energy use	—	84.7%	—	80.6%
More money is needed to solve urban problems	—	48.4%	—	49.9%
They should not obey laws against their own views	—	31.0%	—	35.7%
Inflation is the biggest domestic problem	—	81.4%	—	78.8%
A national health care plan is needed	—	62.8%	—	58.0%
Energy shortages may cause a depression	—	86.2%	—	86.7%
Grading in high school is too easy	—	60.2%	—	58.9%
Living together before marriage is all right	—	38.0%	—	50.3%
Large families should be discouraged	—	41.1%	—	51.1%
Sex is okay if people like each other	—	33.7%	—	55.7%
Women should get job equality	—	96.1%	—	88.4%
Wealthy people should pay more taxes	—	68.5%	—	71.9%
Busing pupils for racial balance is okay	—	46.5%	—	41.5%
Homosexual relations should be prohibited	—	39.0%	—	56.2%
College grades should be abolished	—	14.1%	—	18.4%
Public colleges should adopt open admissions	—	34.3%	—	36.3%
The same degree standard should be used for all	—	76.6%	—	78.7%
Objectives considered to be essential or very important :				
Achieve in a performing art	13.7%	13.6%	9.5%	10.9%
Be an authority in my field	54.3%	70.5%	62.9%	75.3%
Obtain recognition from peers	35.3%	49.8%	45.3%	54.7%
Influence political structure	12.0%	12.0%	19.6%	19.1%
Influence social values	37.1%	33.9%	31.5%	29.8%

Table 15 (continued)

Student Attitudes	Women		Men	
	1969	1979	1969	1979
Raise a family	77.8%	64.8%	66.5%	65.0%
Have administrative responsibility	16.4%	34.5%	29.8%	39.5%
Be very well-off financially	32.1%	56.7%	54.1%	69.1%
Help others in difficulty	75.0%	71.4%	58.2%	55.4%
Make theoretical contributions to science	6.5%	11.2%	14.0%	17.6%
Write original works	16.2%	13.8%	11.8%	10.9%
Create works of art	21.2%	16.7%	11.3%	11.3%
Keep up with political affairs	49.8%	33.4%	52.5%	43.2%
Succeed in my own business	33.1%	42.5%	55.5%	55.9%
Develop a philosophy of life	85.8%	54.7%	78.5%	51.0%
Be involved in environmental cleanup	—	24.6%	—	27.6%
Promote racial understanding	—	35.0%	—	28.9%
Participate in community action	—	28.3%	—	23.5%

Source : "The American Freshman : National Norms for Fall, 1979". Published by American Council on Education and University of California at Los Angeles.

Table 16

Characteristics of recipients of student aid, 1976—1977

Characteristics	Total	Basic Grant	SEOG	Work-Study	NDSL program	GSL program
Number of recipients	1,937,000	1,411,000	432,000	698,000	751,000	695,000
Sex	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Women	53.5	55.1	53.7	55.0	49.7	46.3
Men	46.5	44.9	46.3	45.0	50.3	53.7
Racial/ethnic group	100.0	100.0	100.0	100.0	100.0	100.0
Minority	34.9	43.0	39.1	29.3	25.7	17.0
Nonminority	65.1	57.0	60.9	70.7	74.3	83.0
Enrollment	100.0	100.0	100.0	100.0	100.0	100.0
Full-time	91.6	90.2	96.2	95.4	95.5	92.4
Part-time	8.4	9.8	3.8	4.6	4.5	7.6
Status	100.0	100.0	100.0	100.0	100.0	100.0
Dependent undergraduate	72.0	75.1	74.4	74.5	70.6	67.0
Independent undergraduate	24.0	24.9	25.6	20.5	21.6	18.4
Graduate student	4.0	—	—	5.0	7.8	14.6
Dependent undergraduates by family income quartile[b]	100.0	100.0	100.0	100.0	100.0	100.0
Lowest quartile	52.4	65.0	55.0	44.3	37.7	25.3
Second quartile	34.9	30.4	36.0	39.9	41.5	38.8
Third quartile						
Highest quartile	12.7	4.6	9.0	15.8	20.8	35.9

a Unduplicated count ; excludes GSL program.

b Family income quartiles have been computed by the Carnegie Council from data relating to all families (U.S. Bureau of the Census, 1978b, Table B) ; families in the lowest quartile are those with incomes under $ 8,710, those in the second quartile have incomes from $ 8,710 to 14,960, those in the third quartile have incomes from $ 14,960, to $ 23,210, and those in the top quartile have incomes of $ 23,210 or more. It has been necessary to combine the third and fourth quartiles in this table because the highest income group for which data on student aid are presented in the source is $ 15,000 or more.

Source : Atelsek and Comberg (1977, p. 14).

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Table 17

Percentage of freshmen receiving selected types of student aid, 1977

Type, control, selectivity, and sex	Basic Grant	SEOG	Work-Study	State grant	College grant
Public universities					
Men					
Low selectivity	19.7	5.0	10.3	11.3	9.3
Medium selectivity	19.7	9.0	12.4	16.0	14.1
High selectivity	20.3	7.7	12.3	21.7	18.4
Women					
Low selectivity	22.5	6.5	11.9	13.1	9.5
Medium selectivity	22.2	10.2	14.8	18.9	13.1
High selectivity	19.1	7.3	13.3	21.5	17.5
Private universities					
Men					
Low selectivity	32.1	13.3	17.7	29.8	31.5
Medium selectivity	25.5	14.3	25.1	30.9	39.5
High selectivity	18.5	15.0	29.0	21.0	47.9
Women					
Low selectivity	33.7	12.9	19.2	31.1	31.3
Medium selectivity	21.1	14.1	28.2	31.0	42.6
High selectivity	17.7	12.3	30.1	19.9	43.2
Public four-year colleges					
Low selectivity	40.8	9.9	8.6	18.7	10.8
Medium selectivity	22.0	6.5	12.9	19.6	8.6
High selectivity	30.4	11.2	16.1	26.8	29.9
Private nonsectarian four-year colleges					
Low selectivity	42.7	15.4	24.8	19.7	24.3
Medium selectivity	32.5	13.5	27.2	31.3	42.0
High selectivity	24.5	9.7	29.7	32.1	45.6
Very high selectivity	17.7	7.4	24.2	22.5	39.8
Protestant colleges					
Low selectivity	55.9	19.9	34.7	32.4	30.0
Medium selectivity	38.0	13.6	29.5	36.5	45.4
High selectivity	29.3	13.1	30.3	34.6	47.9
Catholic colleges					
Low selectivity	41.0	21.3	36.8	32.7	30.6
Medium selectivity	34.7	14.9	30.5	41.4	43.4
High selectivity	33.5	14.6	24.9	42.9	42.5

Source: Computed from data in Cooperative Institutional Research Program (1978).

Table 18

Percentage of entering freshmen receiving student aid by type of Institution, 1977

Item and type and control of institution	Parental aid	Basic Grant	SEOG	Work-Study	State grant	College grant	NDSL	GSL
Percent receiving								
All institutions	79.8%	32.7%	9.2%	15.9%	21.2%	16.8%	10.7%	13.1%
Public two-year	72.7	34.9	6.6	8.5	17.8	7.4	7.3	12.5
Private two-year	82.2	47.4	14.9	32.9	37.2	28.2	13.8	14.0
Public four-year	77.7	35.0	9.1	16.8	19.6	12.0	7.5	10.4
Private nonsectarian four-year	87.4	33.0	12.6	26.3	25.3	35.3	17.5	22.9
Private Protestant four-year	84.7	44.6	15.3	31.2	35.0	41.8	21.5	17.5
Private Catholic four-year	82.6	36.9	17.3	31.4	38.5	38.3	18.3	21.4
Public universities	87.0	20.7	7.4	12.3	15.9	12.6	9.8	9.3
Private universities	90.2	25.7	13.7	24.3	27.6	38.9	23.0	18.7
Public black colleges	65.6	79.9	28.1	31.9	18.2	11.5	14.4	10.0
Private black colleges	72.6	73.0	32.4	47.7	22.8	22.3	21.3	13.7
Median amount								
All institutions	1,020	740	less than 500	less than 500	less than 500	670	1,330	780
Public two-year	540	610	less than 500	less than 500	less than 500	less than 500	990	less than 500
Private two-year	1,160	930	540	less than 500	590	less than 500	1,320	900
Public four-year	860	750	less than 500	less than 500	less than 500	less than 500	1,150	630
Private nonsectarian four-year	1,940	920	660	500	840	930	1,660	840
Private Protestant four-year	1,790	990	640	510	1,030	700	1,250	820
Private Catholic four-year	1,680	900	550	530	840	650	1,470	810
Public universities	1,640	740	less than 500	580	510	530	1,180	630
Private universities	3,180	1,010	820	720	960	1,490	1,490	880
Public black colleges	less than 500	910	560	less than 500	less than 500	580	890	less than 500
Private black colleges	650	1,290	610	580	770	900	1,200	530

Source : Adapted from data in Cooperative Institutional Research Programme (1978, pp. 58—59).

Number and salaries of full-time instructional faculty, 1976—1977 and 1978—1979

Rank and sex	1976—1977				1978—1979			
	Full-time instructional faculty		Average salary [1]		Full-time instructional faculty		Average salary [1]	
	Number	Percent	9 month contracts	12 month contracts	Number	Percent	9 month contracts	12 month contracts
Total	386,878	100.0	$ 17,524	$ 21,100	395,968	100.0	$ 19,817	$ 23,702
Men	209,289	75.0	18,354	22,356	293,509	74.1	20,784	25,241
Women	96,589	25.0	15,056	17,159	102,459	25.9	17,077	18,933
Professors	89,710	100.0	23,773	28,764	97,936	100.0	26,476	32,324
Men	81,337	90.7	24,013	29,040	88,507	90.4	26,736	32,619
Women	8,373	9.3	21,503	25,584	9,429	9.6	24,133	28,627
Assistant professors	91,436	100.0	17,884	22,686	96,583	100.0	20,045	25,290
Men	75,368	82.4	18,044	23,033	78,342	81.1	20,228	25,715
Women	16,068	17.6	17,138	21,025	18,241	18.9	19,267	23,312
Assistant professors	104,886	100.0	14,654	18,758	102,087	100.0	16,401	20,865
Men	73,241	69.8	14,849	19,336	68,515	67.1	16,636	21,531
Women	31,645	30.2	14,207	17,376	33,572	32.9	15,930	19,342
Instructors	36,395	100.0	11,819	14,562	34,132	100.0	13,228	15,985
Men	18,551	51.0	12,077	15,148	16,602	48.6	13,477	16,592
Women	17,844	49.0	11,568	13,852	17,530	51.4	13,002	15,305
Lecturers	5,299	100.0	13,419	16,919	5,917	100.0	15,330	19,142
Men	3,086	58.2	14,131	17,617	3,334	56.3	15,957	20,379
Women	2,213	41.8	12,385	16,066	2,583	43.7	14,535	17,299
No academic rank	59,152	100.0	16,606	15,660	59,313	100.0	18,783	17,080
Men	38,706	65.4	17,235	16,226	38,209	64.4	19,486	17,690
Women	20,446	34.6	15,428	14,563	21,104	35.6	17,497	16,025

[1] — Does not include estimates for nonreporting institutions.

Sources: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, unpublished data from the surveys of *Employees in Institutions of Higher Education, 1976—1977* and *Salaries, Tenure, and Fringe Benefits of Full-time Instructional Faculty, 1978—1979.*

Table 20

Characteristics of faculty members, 1972—1973
(percentage distribution)

Item	All institutions			Universities			4-year colleges			2-year colleges		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Highest degree currently held :												
None, less than B.A.	1.3	1.3	1.0	1.0	1.1	0.4	0.6	0.5	0.7	3.3	3.6	2.3
Bachelor's	4.9	4.5	6.5	5.1	4.9	6.3	3.2	2.8	4.3	8.2	7.3	10.9
Master's	44.9	40.8	61.6	30.8	25.0	59.9	47.0	44.3	56.8	73.5	73.6	73.2
LL.B., J.D., other professional (except medical)	5.0	5.4	3.7	6.1	6.6	3.8	4.7	5.1	3.6	3.1	2.9	3.8
Doctorate (except medical, Ed.D. or Ph.D.)	1.5	1.6	1.2	1.6	1.7	1.0	1.8	1.8	1.6	1.0	1.1	0.9
Ed.D.	3.0	3.1	2.6	2.7	2.7	2.7	3.8	4.0	3.1	1.6	1.7	1.4
Medical (M.D. or D.D.S.)	1.1	1.2	0.5	2.3	2.5	1.1	0.1	0.1	0.1	0.3	0.3	0.2
Ph.D.	30.2	33.8	15.6	40.2	44.9	16.4	31.4	34.2	21.5	4.3	4.5	3.4
(No answer)	8.1	8.3	7.4	10.3	10.6	8.5	7.3	7.1	8.2	4.7	4.9	4.0
Year highest degree received :												
Before 1940	4.4	4.6	3.4	6.0	6.3	4.7	3.5	3.7	2.9	2.4	2.4	2.2
1940—1949	9.0	9.4	7.4	11.6	11.8	10.6	7.6	8.0	6.5	5.7	6.2	4.1
1950—1959	24.3	25.5	19.1	26.2	27.7	18.7	22.7	23.5	20.0	22.9	24.4	18.1
1960—1969	46.5	45.4	50.7	43.6	42.4	49.8	48.5	47.8	50.8	48.9	47.9	51.9
1970-present	10.5	9.8	12.9	8.5	7.8	11.6	12.5	12.1	13.8	10.9	10.1	13.5
No higher degree or no answer	5.5	5.2	6.5	4.1	4.0	4.7	5.1	4.9	6.0	9.2	8.9	10.2
Major field of highest degree :												
Business	4.1	4.7	1.9	3.2	3.7	0.9	4.7	5.5	2.0	5.0	5.5	3.5
Education (including physical and health education)	14.8	12.6	23.4	11.3	9.1	21.9	16.3	13.9	24.8	19.8	18.8	22.9
Biological sciences (including agriculture)	6.8	7.4	4.3	9.2	10.1	4.7	4.9	5.1	4.2	5.1	5.4	4.1
Physical sciences (including mathematics/ statistics, and computer sciences)	11.5	13.3	4.3	10.8	12.3	3.0	12.4	14.6	4.4	11.4	13.0	6.2
Engineering (including architecture/design)	6.3	7.8	0.4	8.9	10.5	0.8	4.6	5.8	0.3	4.0	5.3	0.0
Social sciences (including psychology and geography)	12.4	13.3	8.6	13.1	14.2	7.4	13.0	14.1	8.7	9.5	9.2	10.5

Table 20 (continued)

1	2	3	4	5	6	7	8	9	10	11	12	13
Fine arts	8.4	8.3	9.2	7.2	7.0	8.4	10.2	9.8	11.6	11.6	8.7	5.9
Humanities	17.6	16.8	20.6	14.3	14.9	15.7	21.2	20.5	23.9	17.7	16.2	22.3
Health sciences	4.6	3.2	10.2	8.2	6.6	16.4	1.5	0.5	5.1	3.0	0.6	10.1
Other professions (including social work, law, journalism, library science)	4.0	3.7	4.9	5.3	5.1	6.2	3.7	3.3	5.1	1.4	1.0	2.6
All other fields (including home economics, industrial arts, vocational-technical)	2.7	2.1	5.4	2.8	1.7	8.4	2.0	1.5	3.6	4.2	4.3	3.8
None, no higher degree (including no answer)	6.7	6.7	6.6	5.8	5.7	6.2	5.5	5.3	6.3	11.4	12.5	8.1
Principal activity of current position :												
Administration	11.4	12.2	8.5	12.8	13.7	8.6	12.0	12.5	10.0	6.9	7.5	5.2
Teaching	82.2	81.2	86.5	75.8	74.2	83.5	85.4	84.9	87.2	90.6	90.8	89.8
Research	4.2	4.8	1.6	8.5	9.5	3.7	1.3	1.5	0.6	0.3	0.2	0.4
Other	2.2	1.9	3.4	2.9	2.6	4.2	1.4	1.1	2.2	2.2	1.5	4.6
Employment status for current academic year :												
Full-time	95.3	96.1	91.8	93.9	94.8	89.2	95.4	96.5	91.4	98.2	98.8	96.3
Part time, more than half time	1.3	0.9	2.9	1.6	1.2	3.8	1.4	0.9	3.2	0.5	0.3	1.2
Half time	1.2	0.8	2.7	1.3	0.9	3.5	1.4	1.0	2.9	0.6	0.4	1.2
Less than half time	2.2	2.1	2.6	3.2	3.1	3.5	1.9	1.7	2.5	0.7	0.6	1.3
Present rank :												
Professor	26.4	30.3	11.0	36.2	40.9	12 3	24.3	27.8	11.9	8.0	8.2	7.4
Associate professor	24.3	25.1	21.0	25.4	26.4	20.4	27.2	27.8	24.9	15.5	15.8	14.6
Assistant professor	25.3	23.8	31.2	24.4	22.3	35.1	32.2	30.8	37.1	12.9	12.5	13.9
Instructor	13.2	10.4	24.3	8.7	5.9	22.8	10.8	8.6	18.4	29.0	28.2	37.8
Lecturer	2.5	2.2	4.0	3.2	2.7	5.8	2.8	2.4	4.3	0.4	0.4	0.4
Do not hold rank designation	6.7	6.8	6.4	0.5	0.5	0.4	1.6	1.6	1.6	32.1	34.4	25.0
Other rank	1.6	1.4	2.1	1.7	1.4	3.2	1.1	1.0	1.8	2.1	2.5	1.0
Number of hours per week in scheduled teaching :												
None, or no answer	6.6	6.4	7.6	7.2	7.1	7.9	6.2	5.9	7.1	6.4	5.8	8.0
1 to 4 hours	11.8	12.5	9.0	17.8	18.8	12.9	9.0	9.2	8.6	3.7	3.7	3.5
5 to 8 hours	21.8	23.2	16.2	32.6	34.6	22.5	17.5	18.0	15.8	5.9	5.5	7.2
9 to 12 hours	28.3	28.3	28.1	25.2	24.5	28.7	39.6	40.5	36.6	11.4	11.5	11.1
13 to 16 hours	17.3	16.2	21.9	8.8	7.7	14.3	17.5	17.2	18.8	36.7	35.7	40.0
17 hours or more	14.1	13.3	17.1	8.4	7.3	13.6	10.1	9.3	13.1	35.9	37.7	30.2

Table 20 (continued)

1	2	3	4	5	6	7	8	9	10	11	12	13
Current base institutional salary :												
$ 6,500 or less	2.7	2.0	5.7	2.9	2.3	6.1	2.9	2.1	6.3	1.7	0.9	4.1
$ 6,600 — $ 9,500	7.0	4.4	17.6	4.3	2.2	14.7	9.2	6.0	21.5	8.7	6.6	15.5
$ 9,600 — $ 11,500	12.5	10.4	21.4	9.0	6.4	22.0	16.9	15.3	22.8	11.6	9.6	18.0
$ 11,600 — $ 13,500	16.4	16.2	17.3	13.9	12.8	19.1	19.4	20.4	15.7	15.9	15.5	17.2
$ 13,600 — $ 15,500	15.8	16.5	13.1	15.0	15.1	14.6	15.1	16.3	10.6	19.1	20.4	15.0
$ 15,600 — $ 17,500	13.2	14.2	8.9	12.6	13.2	9.4	10.4	11.5	6.0	20.5	22.7	13.3
$ 17,600 — $ 19,500	9.9	10.9	5.5	10.6	11.8	4.5	7.3	8.0	4.7	13.4	15.0	8.4
$ 19,600 — $ 21,500	6.8	7.7	2.8	8.8	9.9	3.4	6.0	6.9	2.6	3.7	4.2	2.4
$ 21,600 — $ 24,500	6.1	7.0	2.3	8.9	10.3	1.7	5.0	5.2	3.9	1.8	2.2	0.5
$ 24,600 or more	9.7	10.8	5.4	14.1	16.0	4.6	7.9	8.4	6.0	3.5	2.9	5.6
Salary basis :												
9/10 months	66.8	66.2	69.0	60.1	59.3	64.3	68.4	68.7	67.5	78.9	78.5	79.9
11/12 months	33.2	33.8	31.0	39.9	40.7	35.7	31.6	31.3	32.5	21.1	21.5	20.1

NOTE. Data are based upon a sample survey. Because of rounding, percents may not add to 100.0.
SOURCE : American Council on Education, Research Report Vol. 8, No. 2, *Teaching Faculty in Academe : 1972—1973.*

Table 21

Foreign student enrollments in institutions of higher education in the United States
Distribution of students by type of institution

	Foreign Students						All Students [1]		
	1970/1971		1976/1977		1977/1978		1970/1971	1976/1977	1977/1978
	Number	%	Number	%	Number	%	%	%	%
Control									
Public Institutions	—	—	130,387	64.2	147,613	62.7	—	78.3	78.0
Private Institutions	—	—	72,681	35.8	87,896	37.3	—	21.7	22.0
Level									
Two-Year Colleges	15,363	10.6	31,671	15.6	37,446	15.9	26.0	35.2	35.7
Four-Year Colleges	129,345	89.4	171,397	84.4	198,063	84.1	74.0	64.8	64.3

[1] Source : National Center for Education Statistics.

Table 21 (continued)

Foreign student enrollments in institutions of higher education in the United States

Foreign Students 1954/1955 — 1977/1978

Year	Number of Students	Annual Rate of Increase	Number of Institutions Reporting	Annual Rate of Increase
1954/55	34,232		1,629	
1964/65	82,045	13.0%	1,859	1.3%
1970/71	117,976	6.2%	1,748	(—1.1%)
1973/74	125,116	2.0%	1,359	(—8.8%)
1974/75 [1]	154,580	23.5%	1,908	40.4%
1975/76	179,344	16.0%	2,261	18.5%
1976/77	203,068	13.2%	2,524	11.6%
1977/78	235,509	16.0%	2,738	8.5%

[1] In 1974/1975 a simple post card method of obtaining the basic count was adopted and immigrants were excluded.

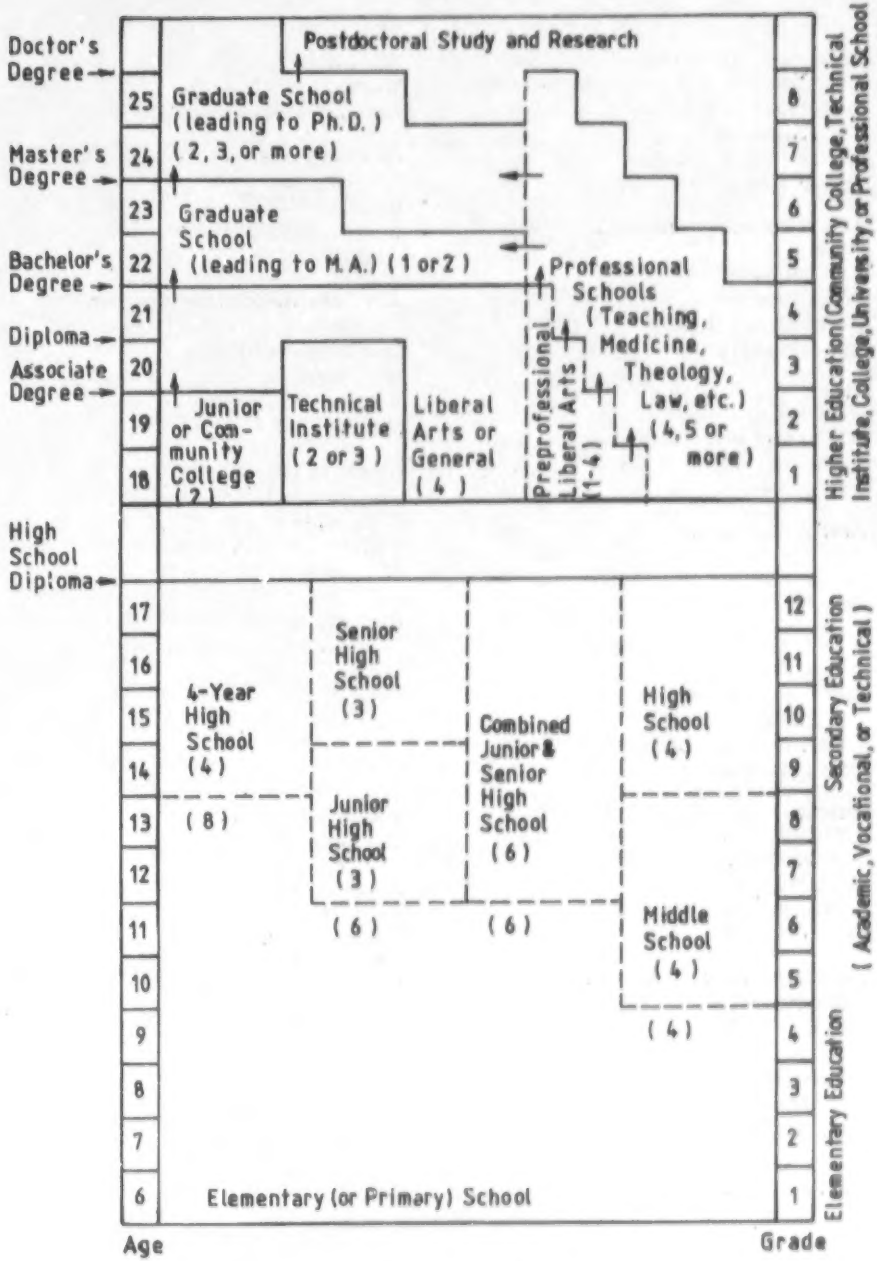
Total higher education and foreign enrollment in the U.S.

Year	Total Enrollment [1]	Foreign Enrollment	Percentage Foreign Enrollment
1960/61	3,583,700	53,100	1.5
1969/70	8,066,200	135,000	1.7
1975/76	11,290,700	179,300	1.6
1976/77	11,121,400	203,100	1.8
1977/78	11,415,000	235,500	2.1

[1] Source: National Center for Education Statistics, Washington, D.C.

Table 22

Structure of Education in the United States



APPENDIX 1

HIGHER EDUCATION ASSOCIATIONS

Accrediting Commission on Education for Health Services Administration
One Dupont Circle,
N.W., Suite 420
Washington, D.C. 20036
(202) 659—3939

Adult Education Association of the U.S.A.
810 18th Street,
N.W., Suite 500
Washington, D.C. 20006
(202) 347—9574

American Assembly of Collegiate Schools of Business
11500 Olive Street Road
Saint Louis, Missouri 63141
(314) 872—8481

American Association of Bible Colleges
P.O. Box 1523
Fayetteville, Arkansas 72701
(501) 521—8164

American Association of Colleges for Teacher Education
One Dupont Circle,
N.W., Suite 610
Washington, D.C. 20036
(202) 293—2450

American Association of Community and Junior Colleges
One Dupont Circle,
N.W., Suite 410
Washington, D.C. 20036
(202) 293—7050

American Association for Higher Education
One Dupont Circle,
N.W., Suite 780
Washington, D.C. 20036
(202) 293—6440

American Association of State Colleges and Universities
One Dupont Circle,
N.W., Suite 700
Washington, D.C. 20036
(202) 293—7070

American Association of University Administrators
P.O. Box 6 — Bidwell Station
Buffalo, New York 14222
(716) 862—5132

American Association of University Professors
One Dupont Circle,
N.W., Suite 500
Washington, D.C. 20036
(202) 466—8050

American Council on Education
One Dupont Circle,
N.W., Suite 800
Washington, D.C. 20036
(202) 833—4700

American Library Association, Committee on Accreditation
50 East Huron Street
Chicago, Illinois 60611
(312) 944—6780, Ext. 268

American Public Health Association
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